B. DRAWYER CREEK TO PINE TREE CORNERS SEGMENT

1. Survey Area 16

Survey Area 16 was a high-potential area located on the southern bank of Drawyer Creek. A substantial portion of this high-potential area, as defined by the UDCAR model, had been massively disturbed by sand mining during the construction of the Dupont Highway. The remainder of the survey area consisted of high ground at some distance from the creek, a low terrace immediately adjacent to the creek, and a slope in between, together measuring about 3.2 hectares (8.0 acres). The initial survey grid in Area 16 consisted of 49 shovel test pits excavated at 20-meter intervals (Figure 25). One archaeological site was located in Survey Area 16, a prehistoric site designated Site 7NC-G-143 (the Drawyer Creek South Site).

Site 7NC-G-143, the Drawyer Creek South Site

The Drawyer Creek South Site was located on a low terrace adjacent to, and only a few feet above, the tidal marsh along Drawyer Creek (see Figure 25; Plate 3). Of the 10 shovel test pits initially excavated in this area, four yielded prehistoric artifacts, consisting of chert and jasper flakes and a single sherd of grit-tempered ceramic. The ceramic was tentatively identified as Minguannan, a Late Woodland variety. Close-interval shovel tests were excavated around Shovel Test Pits 36 and 40, and of these eight additional shovel tests, four yielded additional prehistoric material. One of these shovel test pits, 16-36c, located a prehistoric feature consisting of a concentration of fire-cracked rock (FCR). The Drawyer Creek South Site had never been plowed, and the sandy soils appeared to be intact. The site was tentatively identified as a procurement camp dating to the Late Woodland (Woodland II) period. The site measured about 60x60 meters (200x200 feet).

The Drawyer Creek South Site was considered potentially eligible for listing in the NRHP. Although the quantity of artifacts recovered from the site was not large, they were all recovered from unplowed contexts, and one feature, a possible hearth, was also discovered. Because the site has not been disturbed by plowing, it was anticipated that information on the spatial organization of activities within the camp and the subsistence activities carried out there might be recovered. Phase II significance evaluation of the Drawyer Creek South Site was therefore carried out after consultation with DelDOT and DESHPO staff; the results are presented in Chapter VI.

2. Survey Area 22

Survey Area 22 was a high-potential survey area located north of Odessa along the eastern side of U.S. Route 13 (Figure 26). U.S. Route 13 here follows the route of a colonial road, and the area within 120 meters of the road was considered to have high potential for the location of historic sites from the pre-1849 period. The survey area measured approximately 1.6 hectares (4.0 acres) and consisted of active agricultural fields. A total of 42 shovel test pits were excavated in Area 22, and the only artifact recovered was a single sherd of creamware. No archaeological sites were defined in Survey Area 22, and no further work was recommended.

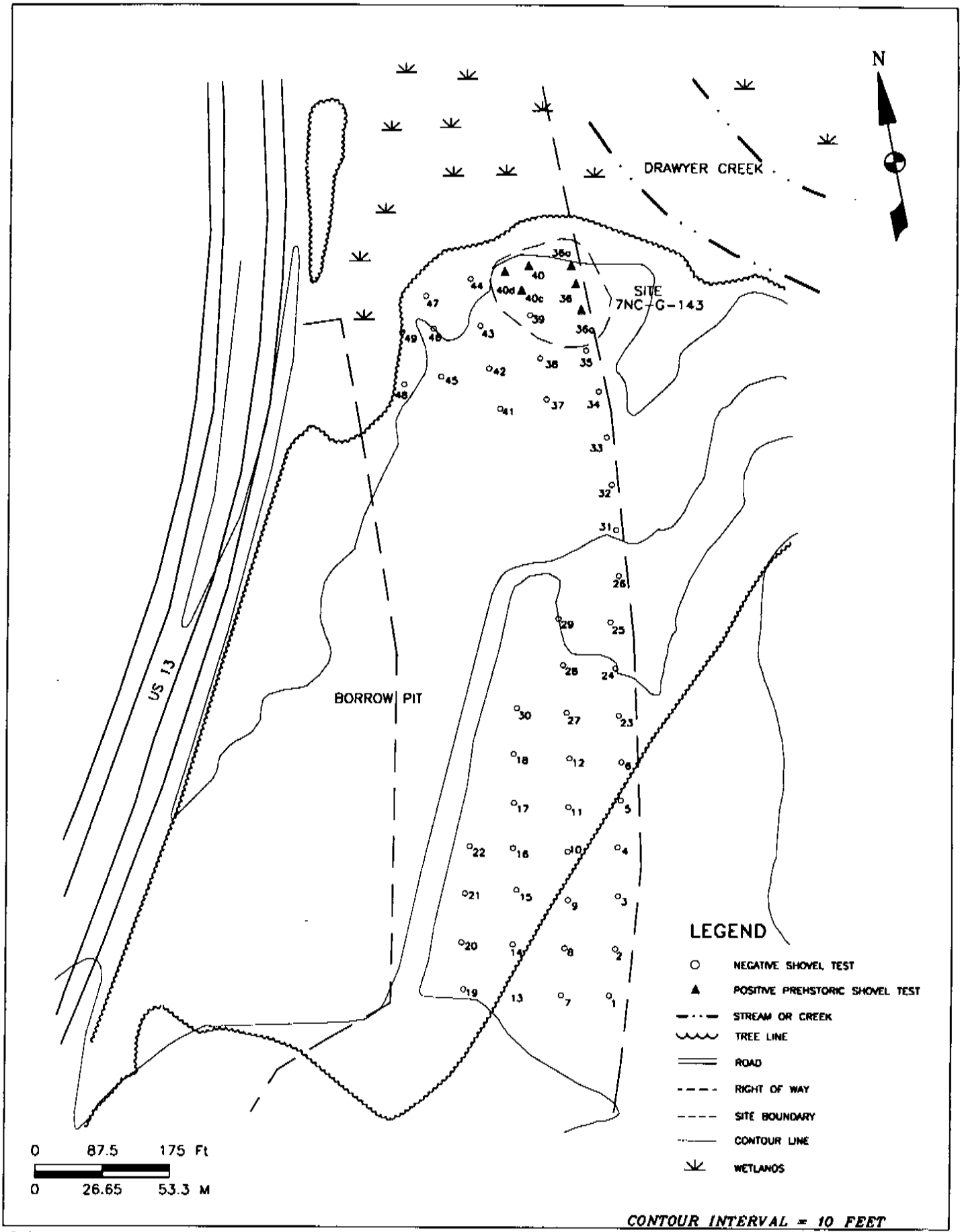

FIGURE 25: Survey Area 16, Drawyer Creek to Pine Tree Corners, and Site 7NC-G-143, Plan of Testing

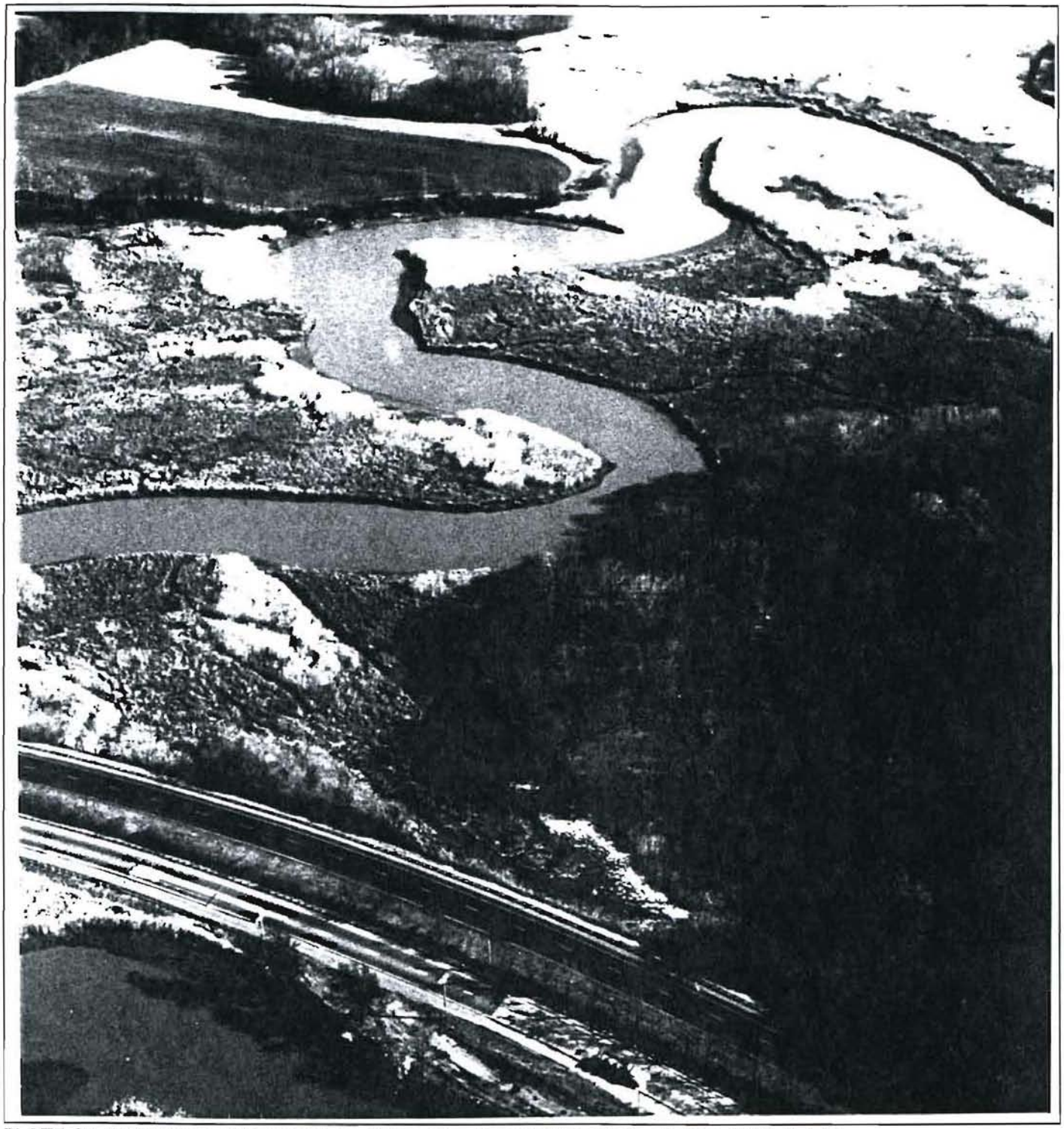

PLATE 3: Aerial View of Survey Area 16 and the Drawyer Creek South Site, 7NC-G-143

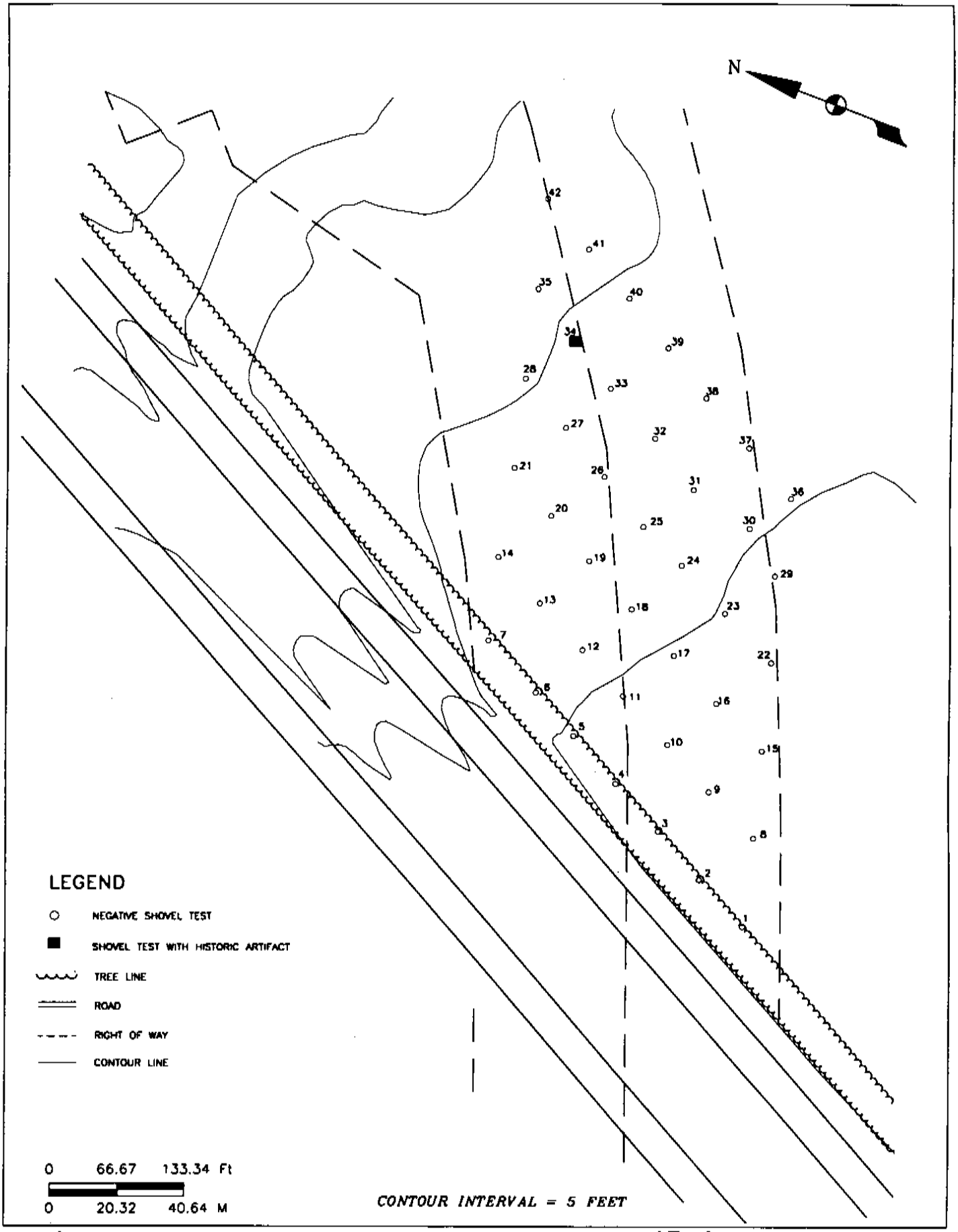

FIGURE 26: Survey Area 22, Drawyer Creek to Pine Tree Corners, Plan of Testing

3. Survey Area 1

Survey Area 1 was a high-potential area along U.S. Route 13 north of Odessa. In this area, U.S. Route 13 follows the route of the old north-south road, so the area within 120 meters of the highway was considered to have high potential for the location of historic sites from the pre-1850 period. Survey Area 1 measured approximately 3.8 hectares (9.5 acres). The northern half of the survey area consisted of pasture, the southern half of agricultural fields covered with soybean stubble. Surface visibility was poor throughout. A total of 93 shovel test pits were excavated in this area on a 20-meter grid (Figure 27). Three pieces of historic ceramics were recovered from widely scattered shovel test pits, as well as one piece of broken chert that could have been a prehistoric artifact. Four additional shovel test pits were excavated at 10-meter intervals around each positive shovel test, but these yielded no cultural material.

No archaeological sites were defined in Survey Area 1, and no further work was recommended.

4. Survey Area 2

Survey Area 2 was a high-potential area, measuring approximately 1.2 hectares (3.0 acres), in the location of a planned storm water retention pond near the center of the Relocated Marl Pit Road corridor. Survey Area 2 was located in active agricultural fields covered with corn stubble. This area was considered low potential by the UDCAR model used in planning the survey. However, a known prehistoric site (7NC-G-48) is located near the corridor here in an area also considered low potential by the model. That site appears to be associated with a marshy tributary of Drawyer Creek that runs nearby. Research by Lu Ann De Cunzo (1993) east of Odessa indicates that the heads of such small drainages are also high-potential areas for the location of colonial sites. A high-potential area was therefore designated within 150 meters of the head of the small creek (Figure 28).

Inspection of Area 2 revealed that it consists of relatively low ground, and that Site 7NC-G-48 is located on higher ground that appeared to be the best site for habitation around the creek head. Nevertheless, 38 shovel test pits were excavated in Area 2 on a 20-meter grid. One piece of redware was recovered, but close-interval shovel test pits excavated around it yielded no cultural material.

No archaeological sites were defined in Survey Area 2, and no further work was recommended.

5. Survey Area 3

Survey Area 3 was a low-potential area, part of the planned 10 percent sample of low-potential areas in the corridor, located adjacent to Marl Pit Road. Area 3, which measured approximately 1.6 hectares (4.0 acres), included the yard of a standing brick ranch house probably dating to the 1960s, and an adjacent, overgrown field. The excavators planned to excavated 32 shovel tests in Area 3, in four rows of eight shovel test pits. One shovel test pit was omitted because of a swimming pool in the yard of the house, but four additional shovel tests were excavated east of

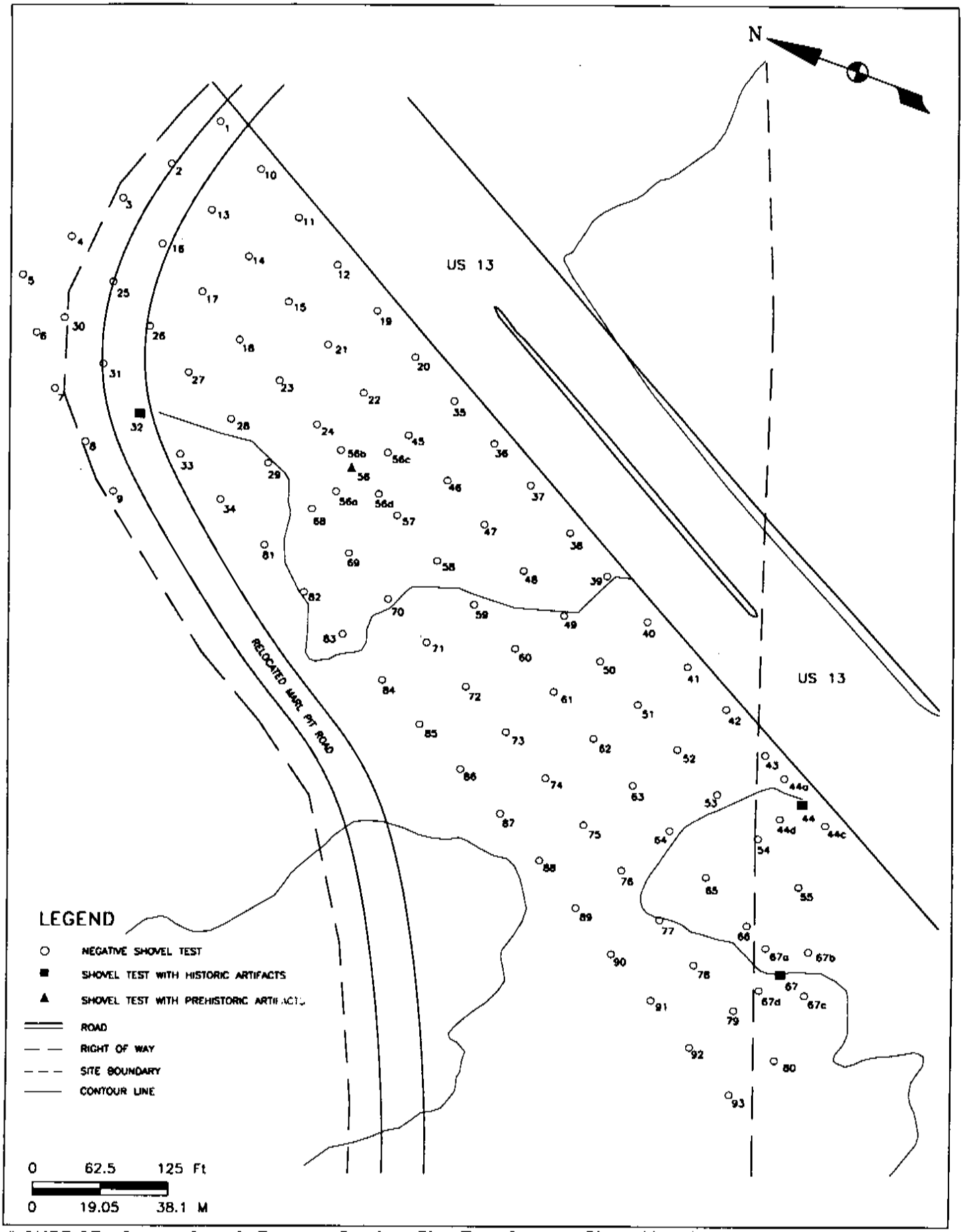

FIGURE 27: Survey Area 1, Drawyer Creek to Pine Tree Corners, Plan of Testing

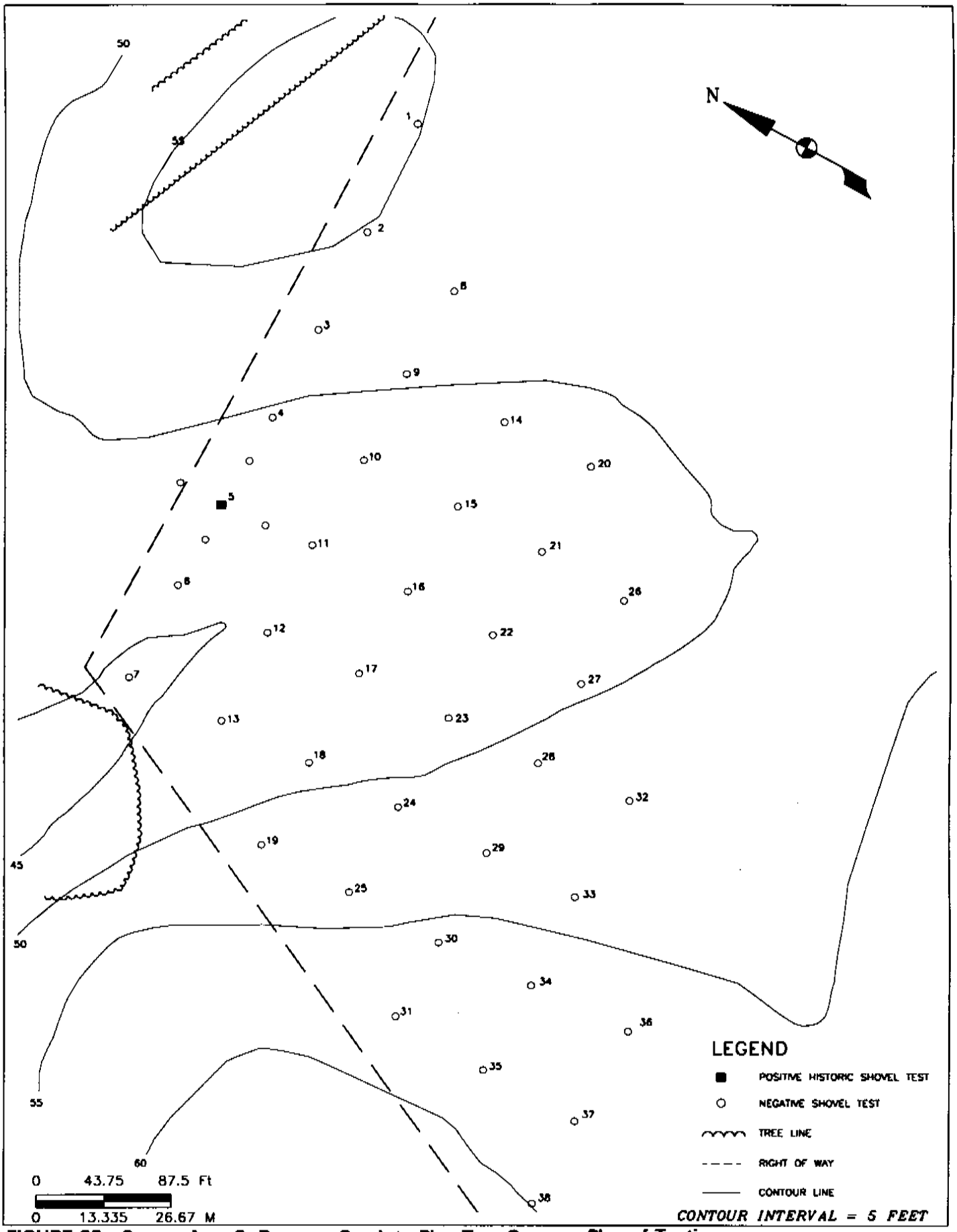

FIGURE 28: Survey Area 2, Drawyer Creek to Pine Tree Corners, Plan of Testing

the original grid (Figure 29). One site was located in Survey Area 1, designated Site 7NC-G-142 (the Marl Pit Road Site).

Site 7NC-G-142, the Marl Pit Road Site

Of the 31 shovel test pits in the original Survey Area 1 grid, 11 yielded historic cultural material. Some of the artifacts could have been associated with the standing house, but most were probably older. These older objects included aqua glass, cut nails, coarse earthenware, transfer-printed whiteware, and coal. A scatter of mortared bricks and cinderblocks was observed on the surface adjacent to the road, near Shovel Test Pit 3-24. The mortar on these bricks was modern Portland cement. Four additional shovel test pits were therefore excavated south of Shovel Test Pit 24, and close-interval radials were excavated around Shovel Test Pits 13 and 20. Of these additional 12 shovel tests, two yielded cultural material. The evidence of the shovel testing suggested that the area was the site of a house in the 1885-1940 period. Because no maps more recent than 1881 were used in planning the survey, a check was made of more recent maps to see if any structures were shown. The 1931 USGS Smyrna map sheet, 1:62,500 scale, shows a single structure along Marl Pit Road near the project corridor. Although the small scale of the map makes precision difficult, the map indicates that this structure is approximately 30 meters (100 feet) east of the existing brick house and somewhat closer to the road. This structure would have been in the center of the site defined by the shovel testing and was probably the core of the site. The site measured approximately 120x70 meters (400x220 feet).

The soil in the approximate location of the house was badly disturbed. Clay subsoil mixed with gravel and coal was visible on the surface through the weeds. Shovel Test Pit 3-25 encountered disturbed fill more than 60 centimeters in depth, and the topography of the lot was unnaturally level. These indications suggested that the circa 1885-1940 house was destroyed by bulldozing. The scatter of bricks and cinderblocks near Shovel Test Pit 3-24, probably once part of a foundation but now displaced, provided further evidence of mechanical destruction. Portions of the site had also been disturbed by the construction of the swimming pool approximately 15 meters (50 feet) away, which involved substantial grading.

Based on the evaluation of the recovered artifacts and the information from historic maps, it was concluded that Site 7NC-G-142 (the Marl Pit Road Site) dated to the very late nineteenth century. Because of the site's recent date and the disturbed nature of the deposits, it was not considered potentially significant. No further work was recommended in Survey Area 3.

6. Survey Area 28

Survey Area 28 was a low-potential survey area located west of Marl Pit Road in the vicinity of a standing twentieth-century house. The survey area measured about 8,000 square meters (2.0 acres). The survey area consisted of the yard of the house and some overgrown areas that were once part of a farm shown on the 1931 USGS map. A total of 21 shovel test pits were excavated in the survey area (Figure 30). A few recent artifacts were recovered, including a 1958 penny, as well as five possible lithic flakes. No archaeological sites were defined in Survey Area 28, and no further work was recommended.

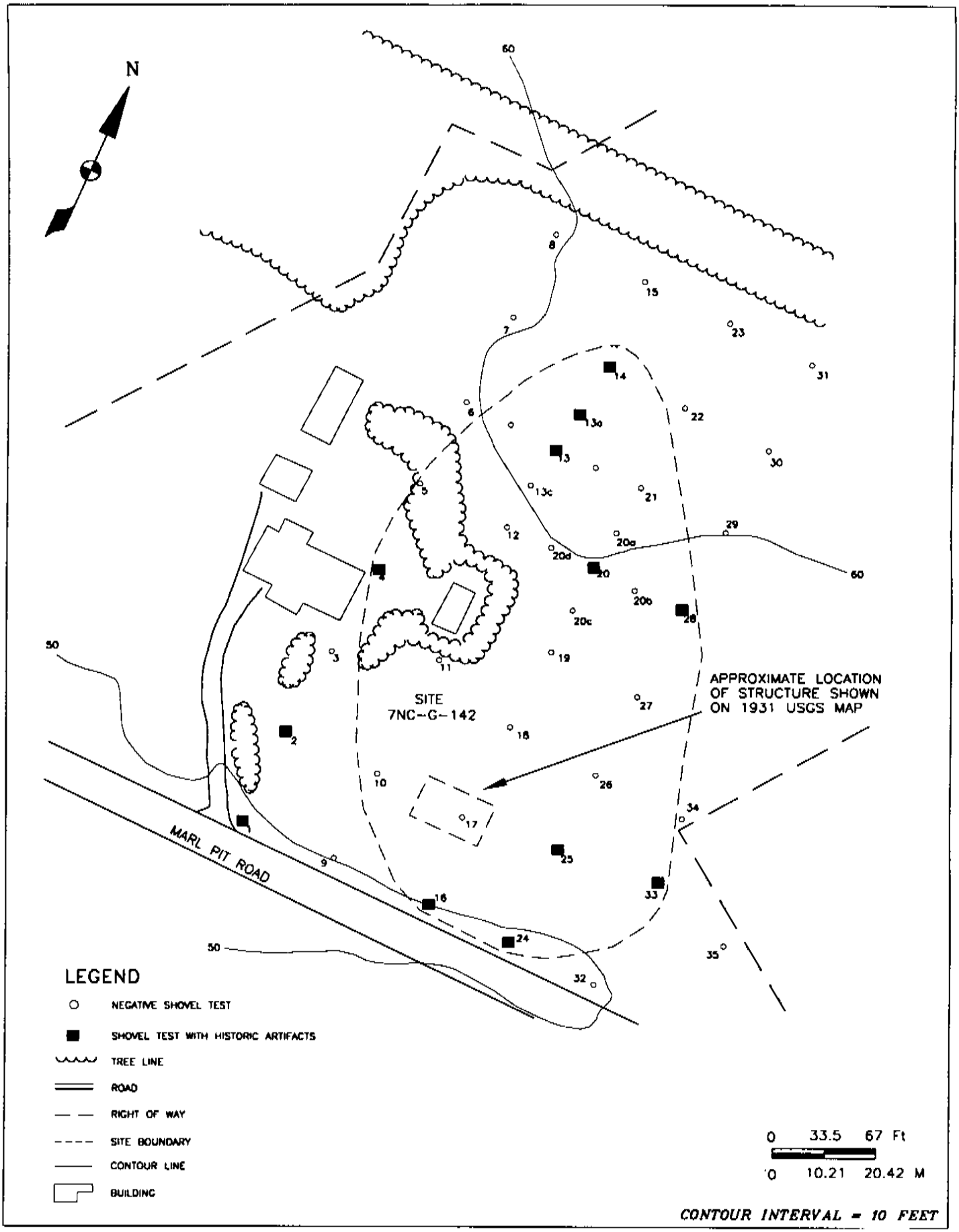

FIGURE 29: Survey Area 3, Drawyer Creek to Pine Tree Corners, and Site 7NC-G-142, Plan of Testing

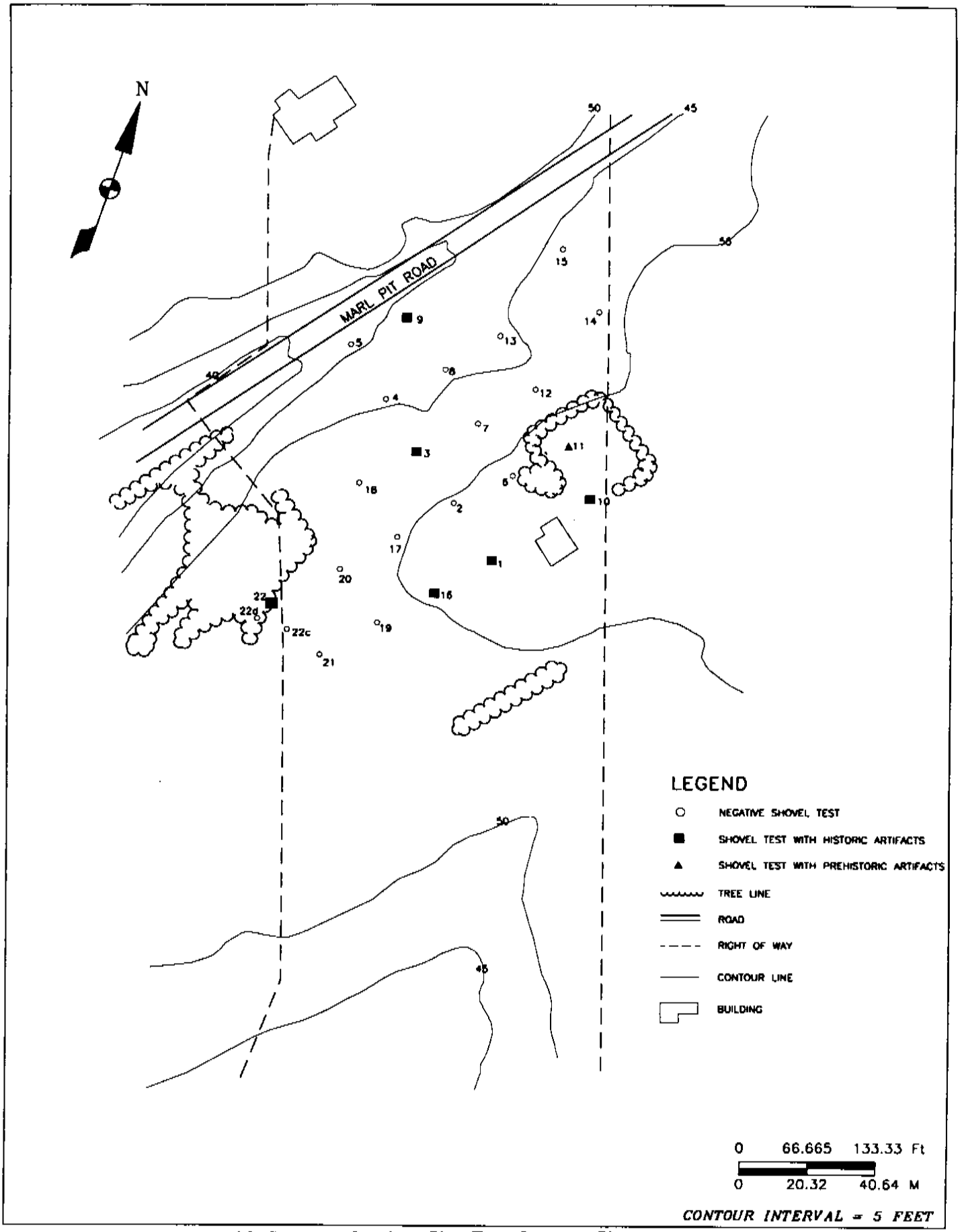

FIGURE 30: Survey Area 28, Drawyer Creek to Pine Tree Corners, Plan of Testing

7. Survey Area 20

Survey Area 20 was a high-potential survey area associated with a ravine that led down to Drawyer Creek. A total of 36 shovel test pits were excavated in the survey area, which measured approximately 1.6 hectares (4.0 acres) (Figure 31). The survey grid in this area was distorted by very dense thickets, but it approximated the 20-meter standard. No artifacts were recovered within the project corridor in this area. Three shovel tests that were numbered as part of Survey Area 20 were excavated just north of the project corridor, on a terrace overlooking the junction of the ravine and Drawyer Creek. A U.S. silver half penny with a design (Liberty with a cap) that dates it to 1794-1796 was recovered from one of these tests. Close-interval shovel tests excavated around the coin recovered no additional material, so the coin was considered an isolated find. Three pieces of quartz and chert debitage were recovered from the other two shovel tests. No archaeological sites were defined in Survey Area 20, and no further work was recommended.

8. Survey Area 21

Survey Area 21 was a low-potential area, part of the planned 10 percent sample of low-potential areas in the corridor. The survey area, which measured 1.6 hectares (4.0 acres), was located south of Drawyer Creek, on level ground between the ravines tested by Survey Areas 17, 19, and 20. Survey Area 21 was located in an active agricultural field. The initial survey grid in Survey Area 21 comprised 36 shovel test pits excavated at 20-meter intervals (see Figure 31). One prehistoric artifact, a piece of quartz debitage, was recovered, but close-interval shovel test pits excavated around it yielded no further cultural material.

No archaeological sites were defined in Survey Area 21, and no further work was recommended.

9. Survey Area 19

Survey Area 19 was a high-potential area associated with a ravine along Drawyer Creek. Survey Area 19 was located east of the ravine. (Survey Area 17 was located west of the same ravine.) Survey Area 19 was located in an active agricultural field currently covered with soybean stubble. A total of 18 shovel test pits were excavated in the survey area, which measured about 8,000 square meters (2.0 acres) (Figure 32). One possible prehistoric artifact (a chunk of quartz) was recovered. No archaeological sites were defined in Survey Area 19, and no further work was recommended.

10. Survey Area 17

Survey Area 17 was a high-potential area, measuring about 6,100 square meters (1.5 acres), associated with a ravine that leads down to Drawyer Creek. Survey Area 17 was not considered high potential by the UDCAR model, but prehistoric sites have been recorded near the heads of similar ravines along Drawyer Creek, and research by Lu Ann De Cunzo (1993) indicates that such ravine heads are also high-probability locations for colonial sites. Survey Area 17 was

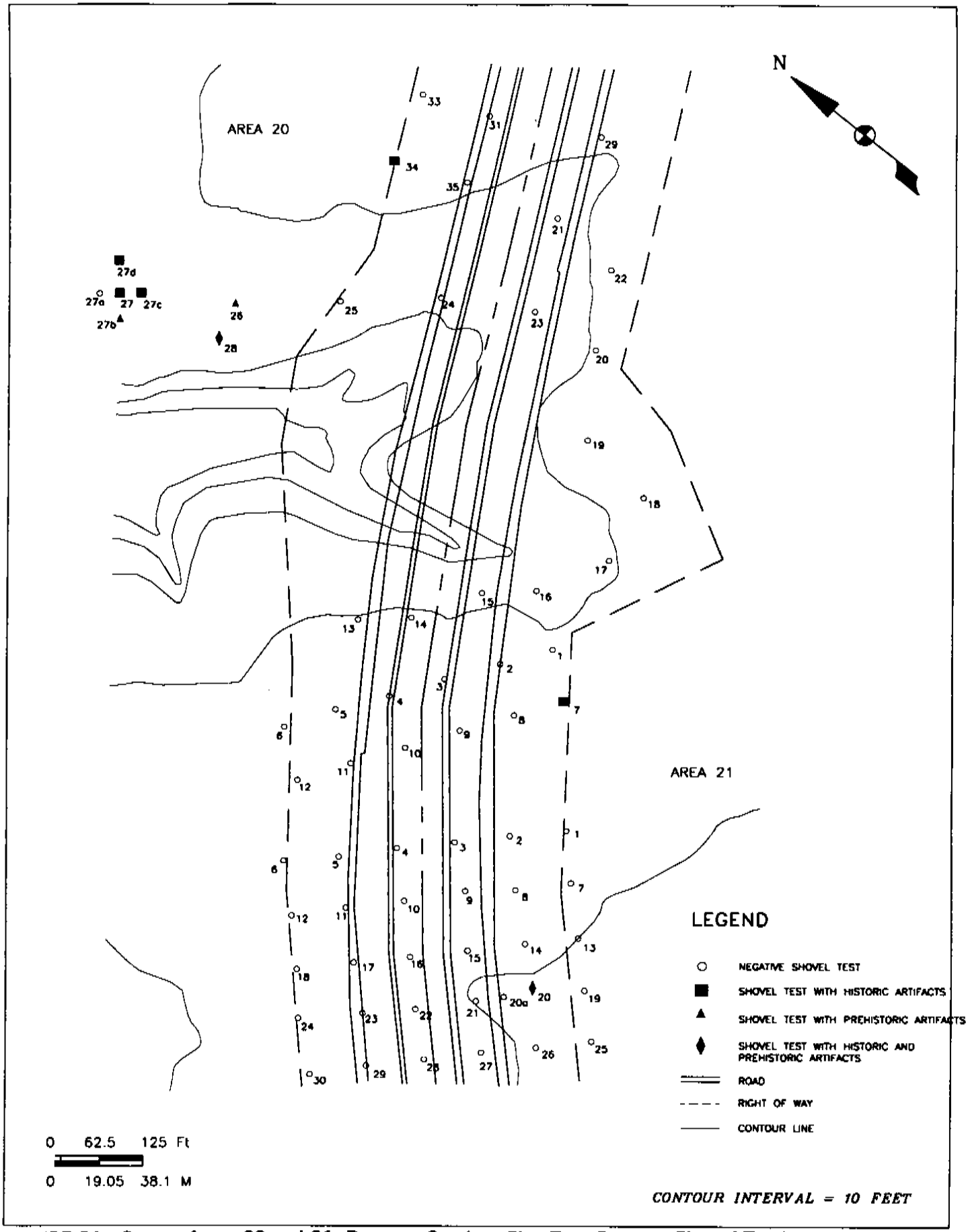

FIGURE 31: Survey Areas 20 and 21, Drawyer Creek to Pine Tree Corners, Plan of Testing

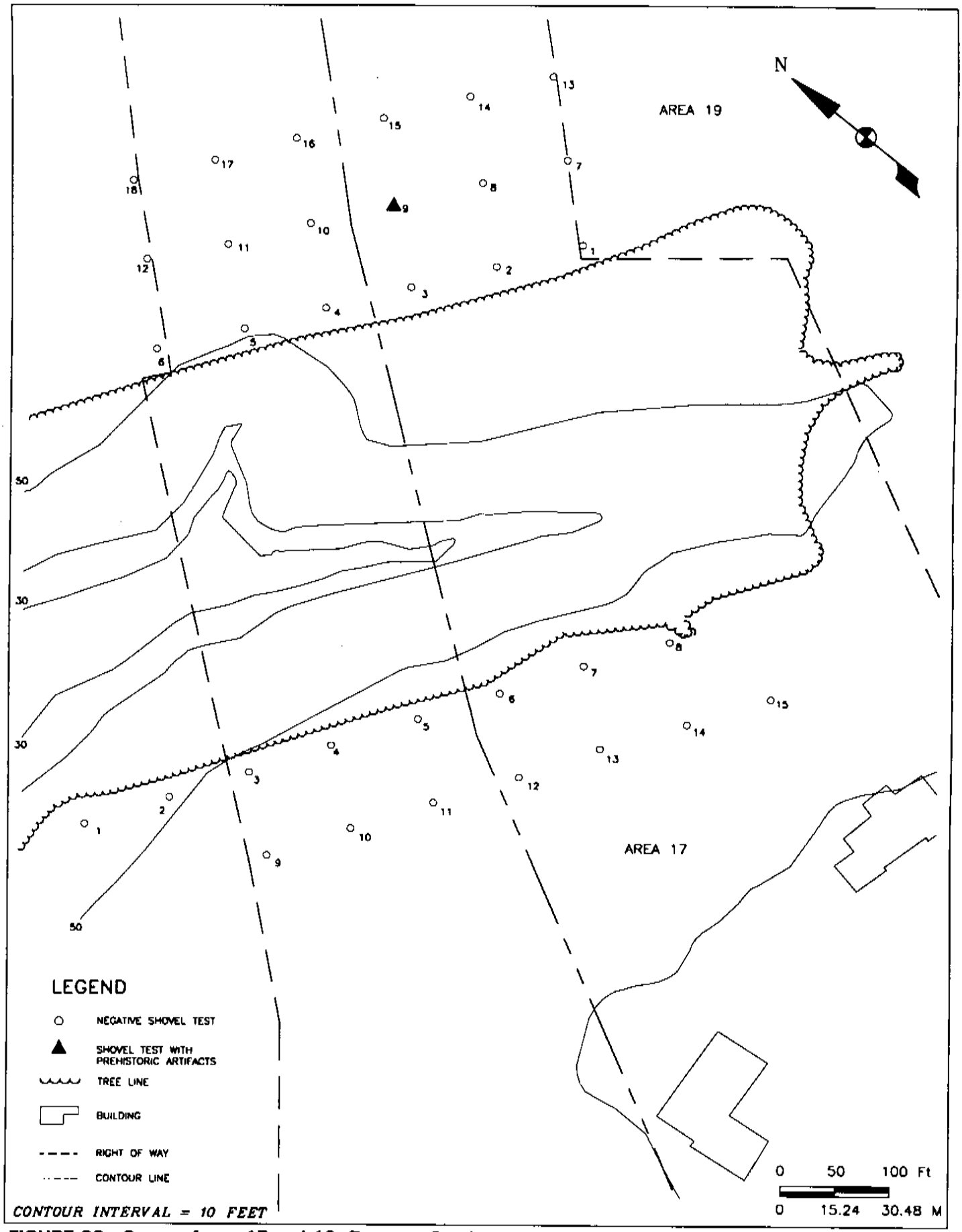

FIGURE 32: Survey Areas 17 and 19, Drawyer Creek to Pine Tree Corners, Plan of Testing

located west of the ravine. (The eastern side of the ravine was included in Survey Area 19.) A total of 16 shovel test pits were excavated in Survey Area 17, and no cultural material was recovered (see Figure 32). No archaeological sites were defined in Survey Area 17, and no further work was recommended.

11. Survey Area 6

Survey Area 6 was a high-potential survey area located north of SR 299, which follows the route of a colonial road known in the eighteenth century as the Middletown Road and in the seventeenth century as the Bohemia Cart Road. In addition, Locust Grove, a standing house dating to circa 1840, was located within this survey area. The survey area consisted of all the well-drained ground in the project corridor within 120 meters of SR 299 (Figures 33 and 34). Survey Area 6 measured about 4.5 hectares (11 acres). A drainage east of Locust Grove, in a substantial ravine, was not tested.

The yard of Locust Grove was tested by the excavation of 28 shovel test pits at approximately 10-meter intervals. The remainder of the survey area was tested at 20-meter intervals, employing a total of 93 shovel test pits. One archaeological site (Site 7NC-F-73), an artifact scatter associated with Locust Grove, was located in Survey Area 6. At the eastern end of the survey area, across the ravine from Locust Grove, a thin scatter of nineteenth-century artifacts was detected. Close-interval shovel tests were excavated in this area, but only one shovel test pit, STP 6-90, yielded more than two artifacts (it contained three). All of the artifacts east of the ravine were recovered from plowed strata. It was concluded that this field scatter was associated with a nineteenth-century farm located outside the project corridor to the east.

Site 7NC-F-73, the Locust Grove Site

Site 7NC-F-73 (the Locust Grove Site) was located within the yard of Locust Grove (Plate 4), a three-story frame house which was constructed in two major stages, the first in about 1840, and the second, in the Second Empire style, in the 1870s. The original structure is now the rear portion of the house. A nineteenth-century smokehouse is the only extant historic outbuilding. The Locust Grove house has been formally determined eligible for listing in the NRHP as part of the *Rebuilding St. Georges Hundred (1830-1899)* thematic nomination (Kiso, Franks & Straw 1994). During the mid- and late nineteenth century, agriculture in the hundred was highly profitable, and this economic success bred an intensive rebuilding effort. Locust Grove is one of several surviving houses that attest to this rebuilding. The site measured about 90x75 meters (300x250 feet).

Excavations in the yard of the Locust Grove house revealed dense refuse deposits, containing up to 78 artifacts per shovel test. These deposits were well preserved, and contained large fragments of ceramics and well-preserved faunal material. Artifacts dating to the entire span of the house's occupation (ca. 1840 to 1990) were recovered. One feature, a brick walkway, was also located during testing. It was determined by probing that this walkway connected the front door of the house with the driveway to the east.

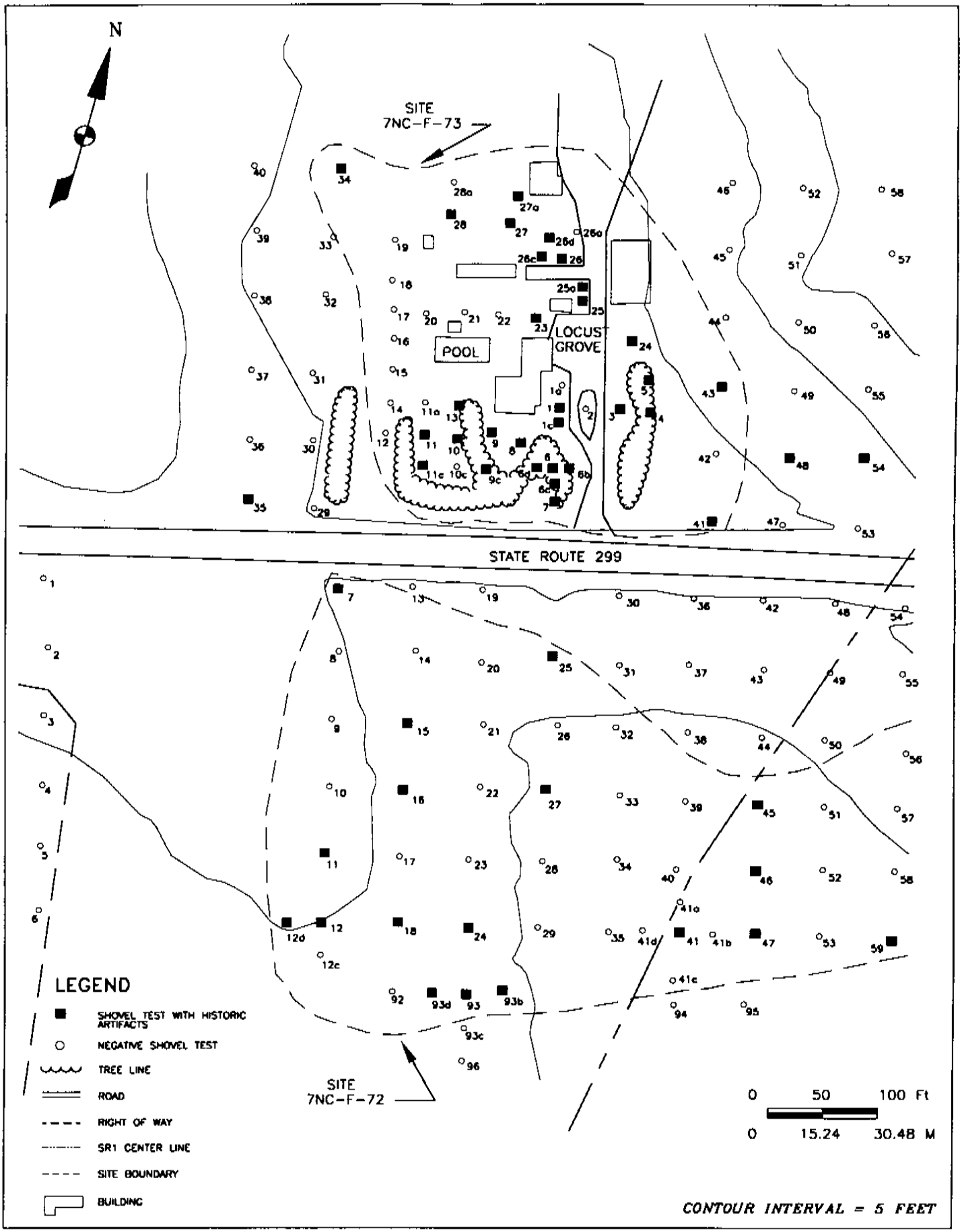

FIGURE 33: Survey Areas 6 and 10, Drawyer Creek to Pine Tree Corners, and Sites 7NC-F- 72 and 73, Plan of Testing, Western Section

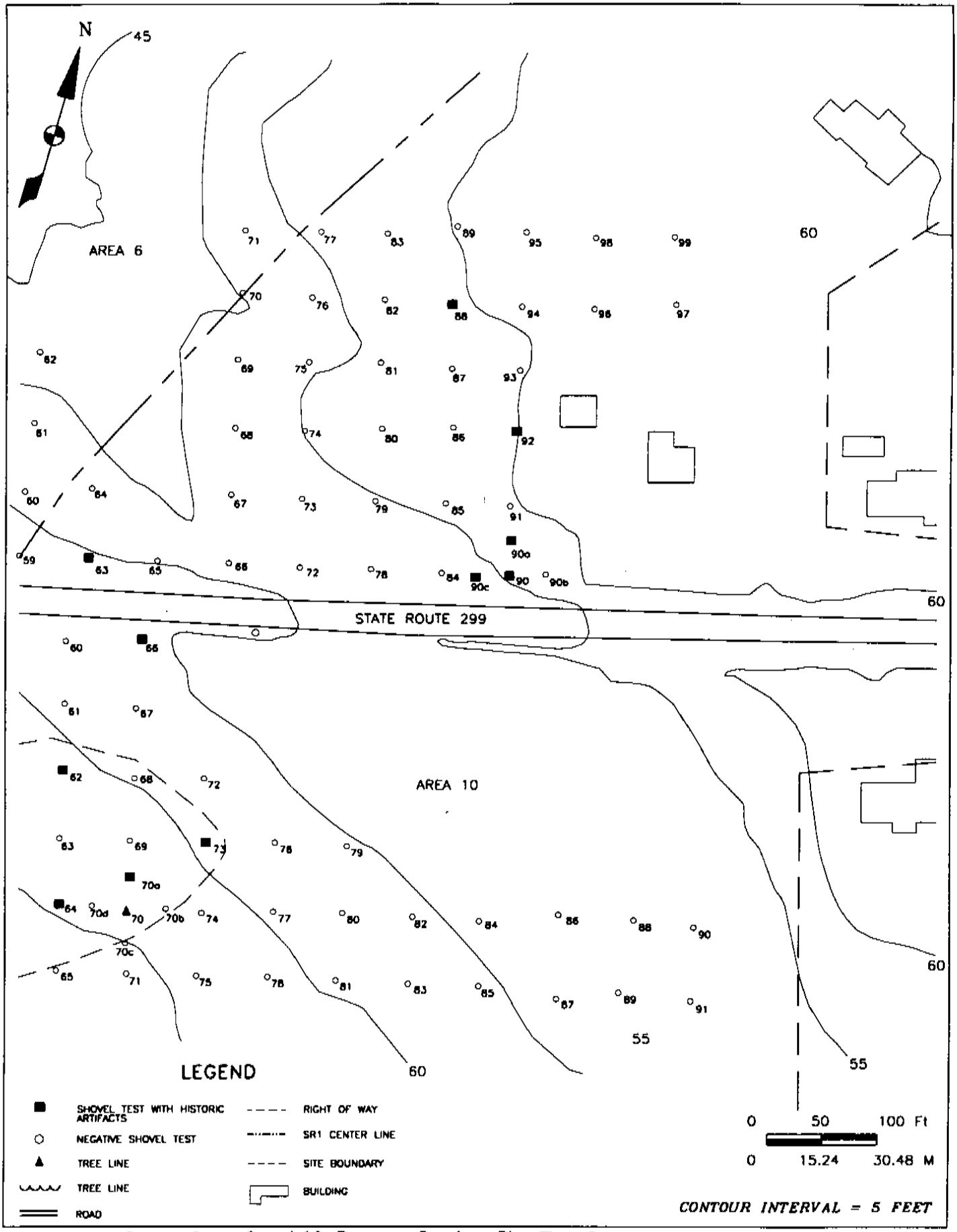

FIGURE 34: Survey Areas 6 and 10, Drawyer Creek to Pine Tree Corners, and Sites 7NC-F- 72 and 73, Plan of Testing, Eastern Section

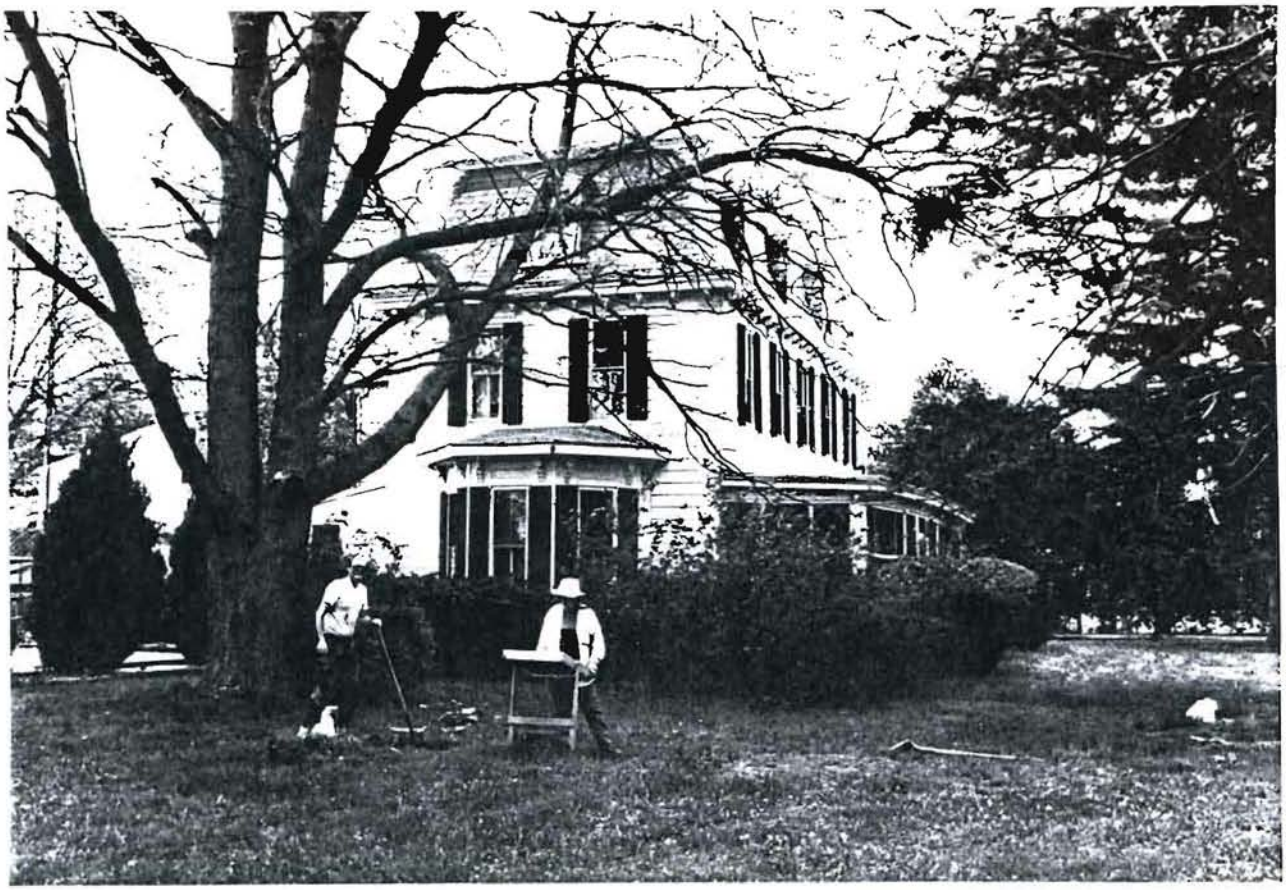

PLATE 4: Shovel Testing in the Yard of Locust Grove, Site 7NC-F-73

The Locust Grove Site (7NC-F-73) was considered potentially eligible for listing in the NRHP. The site is associated with a well-documented standing house and a well-known family of considerable local importance. The artifacts were recovered from undisturbed deposits and included dietary materials. Phase II significance evaluation was therefore undertaken, after consultation with DelDOT and DESHPO staff, and the results are presented in Chapter VI.

12. SR 299 Park and Ride Site

The SR 299 Park and Ride Site was located on the northern side of Middletown Road, just west of Survey Area 6 and the Locust Grove Site. The Park and Ride Site was surveyed in December, 1995, a year after the survey of the adjacent portion of the SR 1 corridor. The Park and Ride Site included areas with high potential for historic sites associated with Middletown Road, and an area considered to have prehistoric high potential because of an intermittent stream that cuts across the survey area. The survey area measured approximately 4.0 hectares (10 acres), and included four house lots, two agricultural fields, and an intermittent drainage (Figure 35). Only one house was standing at the time of the survey, but DelDOT design plans show three others, which have only recently been moved to other locations. The remaining house was a single-story frame structure of recent construction.

Because surface visibility was inadequate for survey in all portions of the project area, the survey was conducted by the excavation of shovel test pits. A total of 81 shovel test pits were excavated in the survey area (77 on a 20-meter grid across the project area), resulting in the recovery of 25 historic artifacts. No prehistoric artifacts or features were encountered. Evidence of substantial subsurface disturbance was noted in the immediate vicinities of the relocated houses, probably due to the use of the heavy machinery necessary for the removal of these structures. After a bucket auger confirmed the disturbed character of the soils surrounding the house "footprints," these portions of the survey area were eliminated from testing. Subsurface disturbance was also noted in the shovel tests adjacent to Middletown Road, perhaps associated with a trolley line that residents stated ran along the road early in this century. A deeply incised seasonal drainage running southeast to northwest across the fallow field was also not tested.

Shovel testing revealed that, except in the disturbed house plots, a plowzone was present throughout the project area. All of the artifacts within the sample were recovered from this stratum. Nearly half of the artifact sample (N=12) was recovered from the eastern margin of the project area, in Shovel Test Pits 3, 9, 11, 20, 22, 78, and 80. This portion of the project area is adjacent to the Locust Grove Site (Site 7NC-F-73). The location, artifact types (redware, whiteware, curved and flat glass, and cut nails), and limited quantity of the sample suggested that the material derived from the dumping of domestic trash around the edge of the yard of the Locust Grove residence. Four additional, close-interval shovel test pits were excavated in this area. Nine historic artifacts, including redware and flat glass, were recovered from four shovel tests within the cornfield at the western edge of the project area. Several small brick fragments scattered across the field were noted and discarded. If these finds indicate the presence of a house, it was probably located outside the project area to the west. No archaeological sites were defined in this survey area, and no further work was recommended.

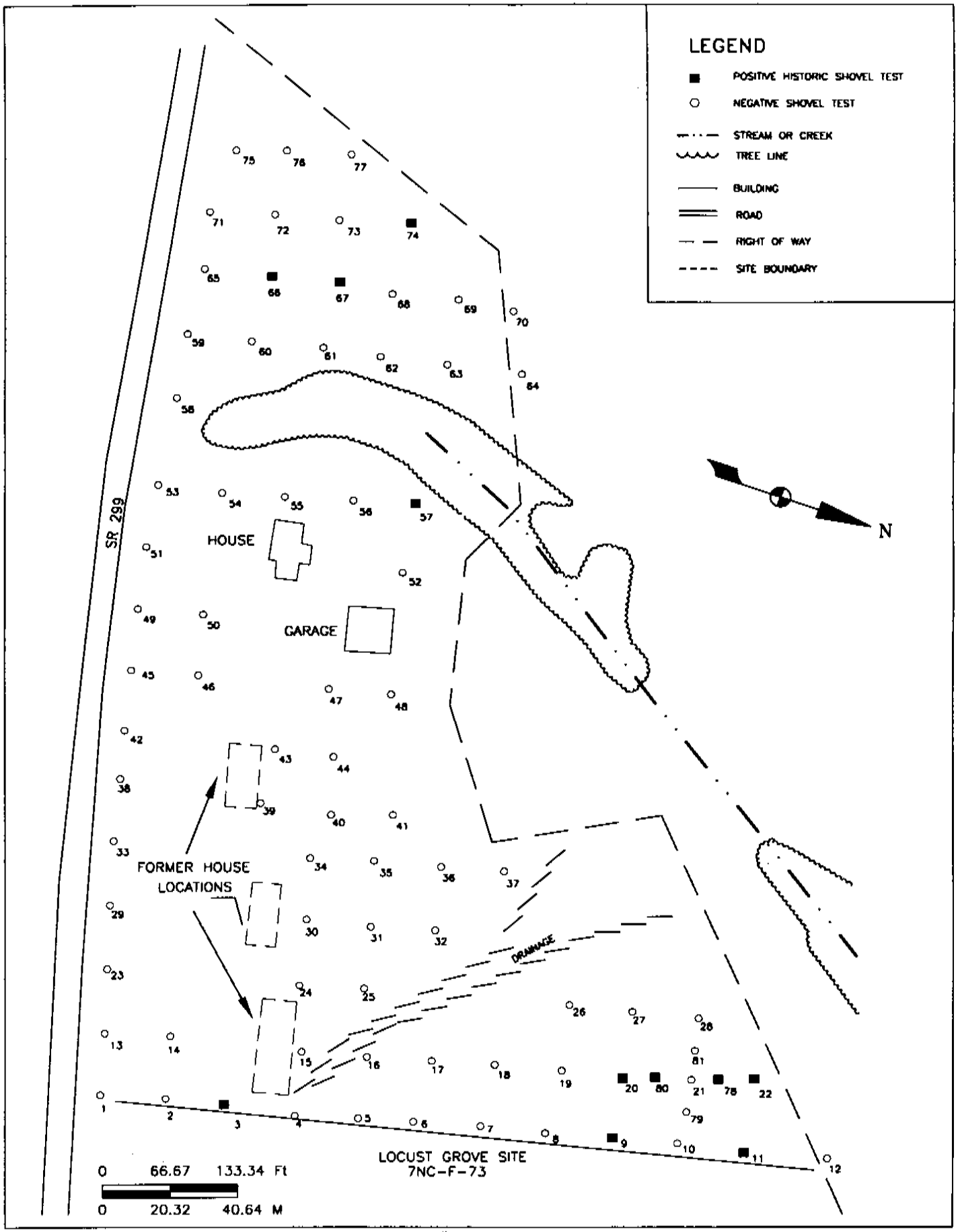

FIGURE 35: SR 299 Park and Ride Site, Plan of Testing

13. Survey Area 10

Survey Area 10 was a high-potential survey area, measuring about 3.6 hectares (9.0 acres), associated with SR 299. SR 299 follows the route of a colonial road known in the eighteenth century as the Middletown Road and in the late seventeenth century as the Bohemia Cart Road. The area adjacent to the road was considered to have high potential for the location of historic archaeological sites from the pre-1849 period. Survey Area 10 was located south of the road, opposite Locust Grove. The area was an active agricultural field which was planted in winter wheat at the time of the survey. In most parts of the survey area surface visibility was approximately 10-20 percent, but in low-lying areas where water had pooled it was as high as 50 percent.

All the well-drained ground within 120 meters of the road was shovel tested at 20-meter intervals, employing 92 shovel test pits (see Figures 33 and 34). Two lower-lying areas comprising approximately 20 percent of the planned survey area were not shovel tested. These areas were not considered to be likely locations for archaeological sites, and, in addition, they contained numerous bare spots where standing water had slowed the growth of the wheat, providing good surface visibility; surface inspection of these areas was therefore considered adequate survey. One archaeological site was located in Survey Area 10, a scatter of late nineteenth-century artifacts designated Site 7NC-F-72 (the Middletown Road Site). The initial survey grid in Area 10 comprised 91 shovel test pits. Five additional shovel test pits were excavated south of the survey area to define the southern boundary of Site 7NC-F-72, and 13 additional close-interval shovel test pits were excavated to define the site, bringing the total to 109 shovel test pits in the survey area.

Site 7NC-F-72, the Middletown Road Site

The Middletown Road Site (Site 7NC-F-72) was located on a low ridge in the center of the survey area, the highest ground in the survey area, across SR 299 from the nineteenth-century mansion known as Locust Grove. The site measured about 250x100 meters (800x325 feet). Of the 56 shovel test pits originally excavated in this area, 22 yielded historic artifacts. The artifact scatter was thin, with most shovel tests yielding only one or two artifacts, and very little material was visible on the surface. No significant concentrations of material were noted. The most common materials recovered were brick and coal. The other materials constituted a fairly typical assemblage from the 1830 to 1880 period, including whiteware, pearlware, ironstone, redware, cut nails, window glass, a porcelain doll's arm, and fragments from what appeared to be mold-blown glass bottles. Excluding brick and coal, 26 historic artifacts were recovered. Because architectural fragments (brick, nails, and window glass) constituted a significant portion of the assemblage, the site seemed more likely to represent a dwelling site than trash dumping. Since the site is not shown on any known historic map, and also because of the small amount of material recovered, the occupation must have been rather ephemeral, perhaps a briefly occupied tenant house. A large gully located in Area 10 along SR 299 is probably part of a road shown on the 1931 USGS map. The road ran southeast and then east, joining the Dupont Highway south of Odessa. If the Middletown Road Site represents a dwelling, the dwelling may have been located along this road.

One prehistoric artifact was recovered from Area 10, a quartz biface from Shovel Test Pit 10-70. Close-interval shovel test pits excavated around the biface yielded no further prehistoric material, so the biface was considered an isolated find.

Although Site 7NC-F-72 did not yield many artifacts, it was considered potentially significant. Short-lived tenant occupations are an important component of the material record of rural life in nineteenth-century Delaware, and because they produce few artifacts, they can easily be overlooked. It was therefore recommended that limited Phase II testing be performed to determine if subsurface features are present on the site. After consultation with DelDOT and DESHPO staff, Phase II testing was carried out, and the results of this testing are reported in Chapter VI.

14. Survey Area 11

Survey Area 11 was a low-potential survey area, measuring about 1.6 hectares (4.0 acres), located approximately midway between the Appoquinimink River and SR 299. The area was located on nearly level terrain, on a low rise between shallow drainages that run down to both the east and west. The initial survey grid in Area 11 comprised 36 shovel test pits at 20-meter intervals (Figure 36). Eleven historic artifacts and one possible prehistoric artifact were recovered. Close-interval shovel test pits were excavated around the prehistoric artifact (a chunk of worked quartz), and around a shovel test that yielded three sherds of whiteware. The historic material, a thin scatter of nineteenth-century artifacts (creamware, pearlware, whiteware, redware, and clear glass), is probably a field scatter associated with Spring Valley, an 1846 farm located outside the corridor 100 meters away. No archaeological sites were defined in Area 11, and no further work was recommended.

15. Survey Area 4

Survey Area 4 was a high-potential area on the northern bank of the Appoquinimink River. Survey Area 4 was quite large, measuring approximately 7.3 hectares (18 acres) (Figures 37 and 38). The corridor here paralleled a ravine and a small tributary of the river. The lower reaches of the tributary were tidal marshlands, and an intermittent stream (flowing at the time of the survey) extends from the marsh approximately 300 meters (1,000 feet) up the ravine. The ravine itself extended the entire length of the high-potential area, 450 meters (1,500 feet). Two prehistoric archaeological sites had been recorded in or near this survey area (Sites 7NC-F-13 and 7NC-F-24). Both sites were recorded as undated prehistoric lithic scatters.

In Area 4, the project corridor crossed active agricultural fields. At the time of the survey, the fields were covered with soybean stubble, and surface visibility was poor. The area was shovel tested at 20-meter intervals, employing 183 shovel test pits. An additional 27 shovel test pits were excavated around positive shovel tests to better define the sites, and seven shovel test pits were excavated outside the corridor to define the western boundary of Site 7NC-F-13. Along the river, two shovel test pits were excavated deep into the subsoil to search for buried cultural deposits. In these two shovel tests, a stratum of coarse sand containing quantities of rounded

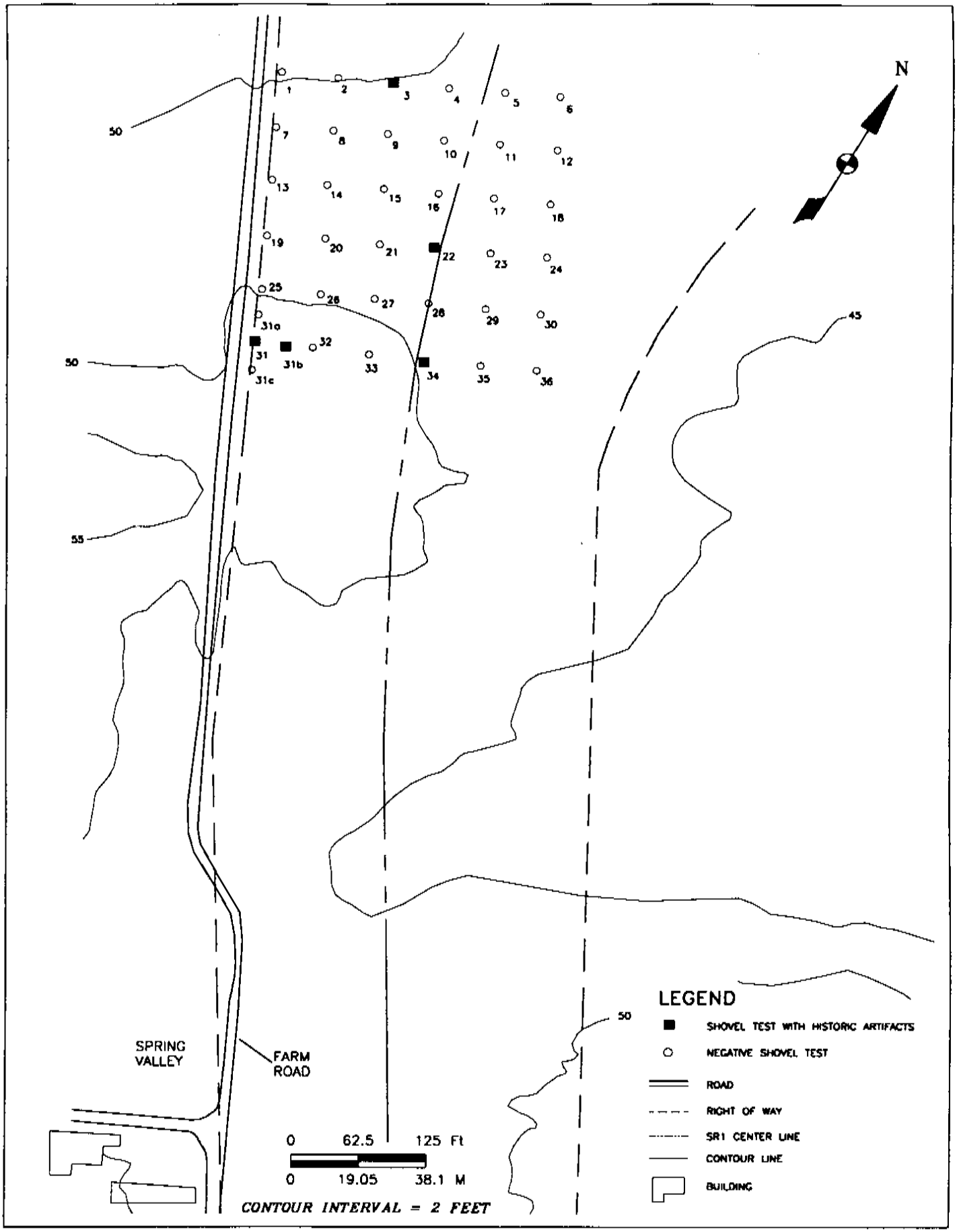

FIGURE 36: Survey Area 11, Drawyer Creek to Pine Tree Corners, Plan of Testing

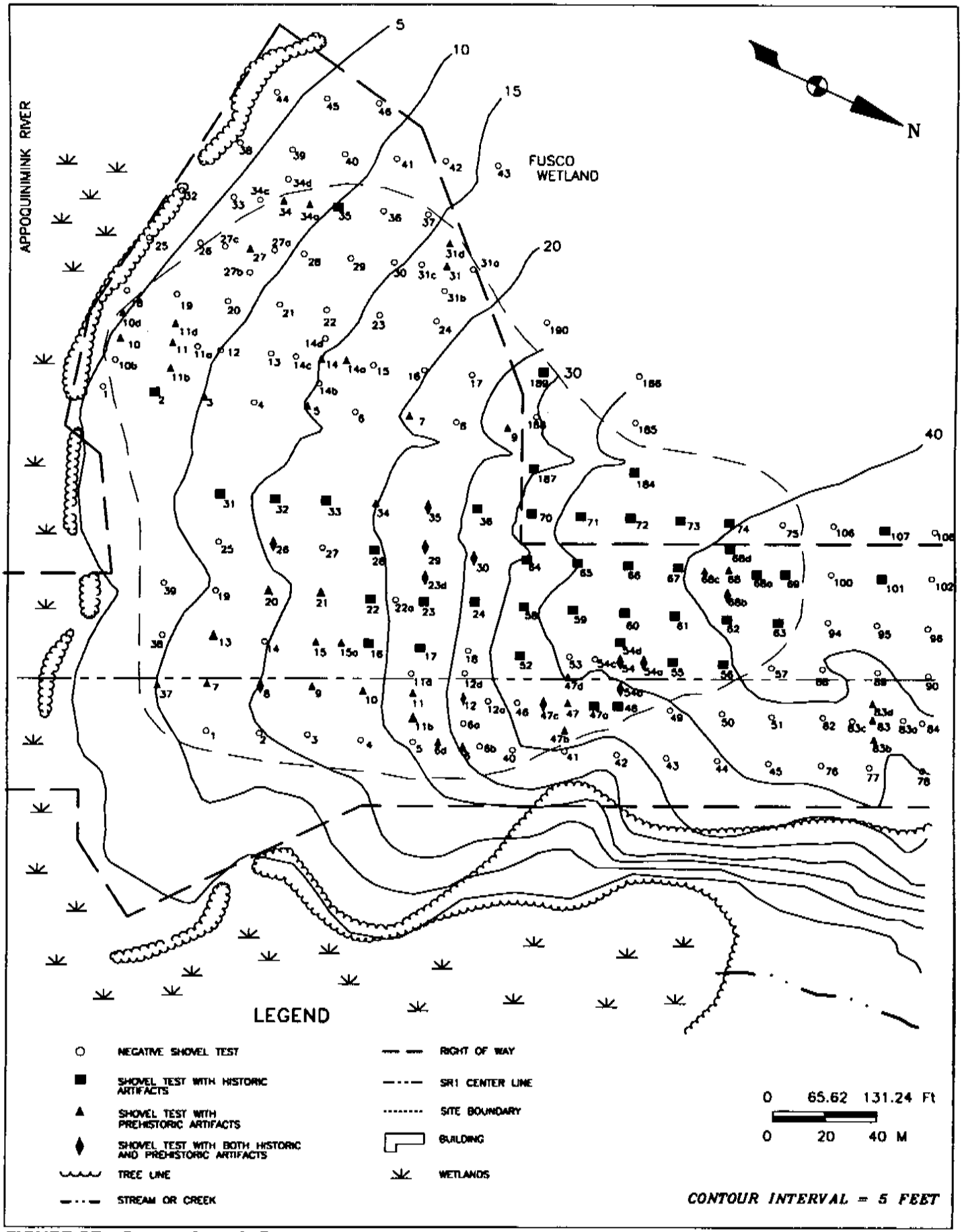

FIGURE 37: Survey Area 4, Drawyer Creek to Pine Tree Corners, Fusco Wetland, and Sites 7NC-F-13 and 7NC-F- 24, Plan of Testing, Western Section

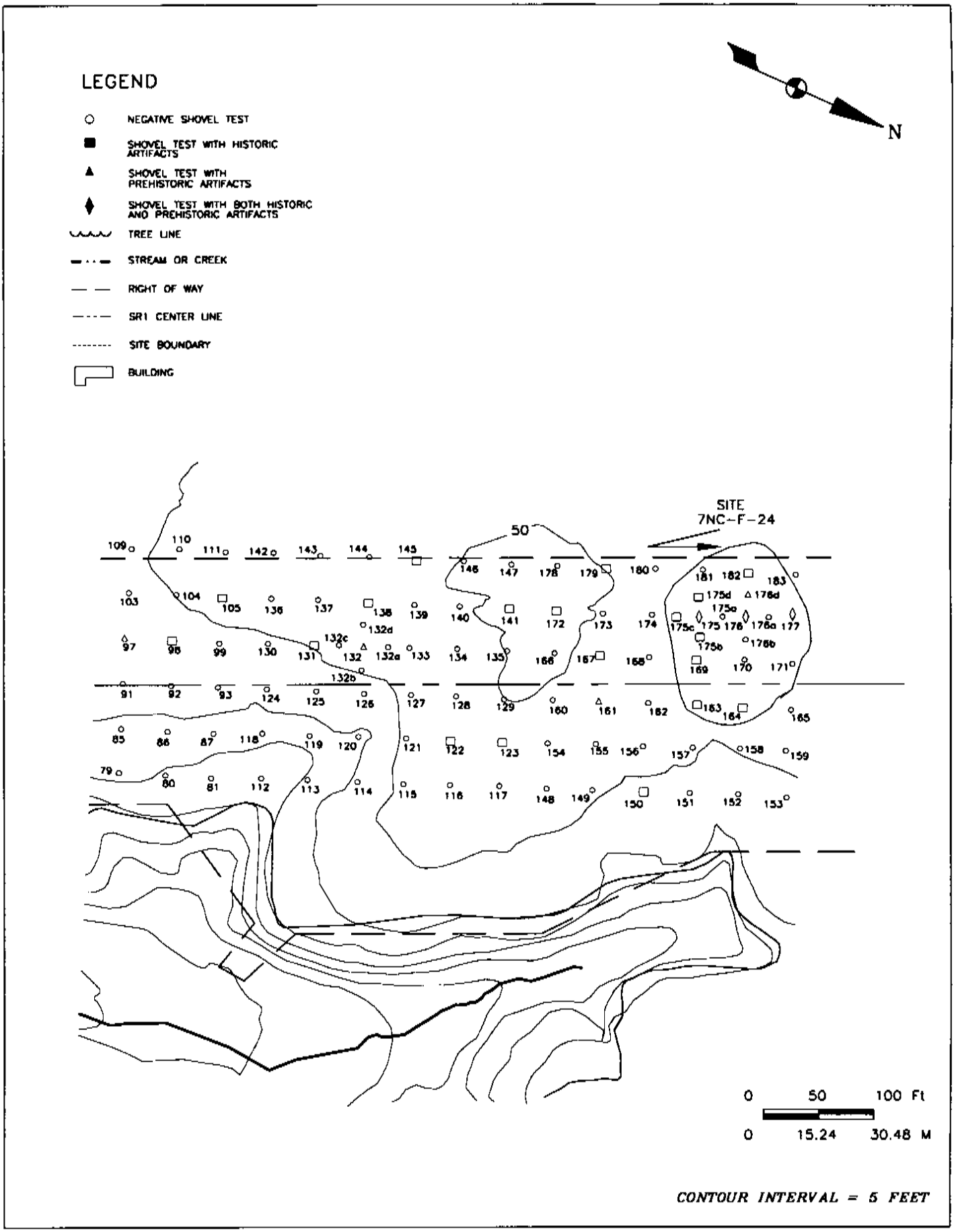

FIGURE 38: Survey Area 4, Fusco Wetland, and Sites 7NC-F-13 and 7NC-F-24, Plan of Testing, Eastern Section

gravel and small cobbles was encountered beneath the plowzone. In one of these deep shovel test pits, the sand stratum continued to a depth of 80 centimeters. The second deep shovel test pit, 40 meters from the first, revealed a layer of silt below the sand, extending from 40 to 75 centimeters below grade, and below that a second layer of coarse sand. All of these subplowzone deposits appeared to be of Pleistocene age.

Four loci of cultural activity were discovered or re-identified in Area 4, three prehistoric and one historic. In the field, these were designated LBA Sites 2, 3, 4, and 5. After consultation with DESHPO, Sites 2, 3, and 4 were subsumed under Site 7NC-F-13, and Site 5 was equated with Site 7NC-F-24.

Site 7NC-F-13, the Appoquinimink North Site

Site 2 was identified during the fieldwork as a scatter of prehistoric lithics in the lower portion of the corridor, along the river. The ground here slopes gradually upward, culminating in a well-defined scarp and a nearly level hilltop. Possible prehistoric artifacts were recovered from 20 of the 47 shovel test pits excavated in this area. The artifacts recovered consisted largely of jasper flakes with cobble cortex. Gardner and Stewart (1978) encountered similar objects in their survey of the Odessa-Middletown sewer, which crosses this area along the bank of the river, and they concluded that most of this material was not cultural. However, the artifacts recovered by LBA included several obvious jasper flakes, as well as a jasper projectile point tip, so many of the cobble fragments may be cultural in origin. Other objects recovered include chert and quartz flakes, a quartz corner-notched projectile point, and a badly worn hornfels or argillite biface. This prehistoric component had no well-defined boundaries, but was simply part of a thin artifact scatter extending along the Appoquinimink River east and west of the corridor, representing episodic procurement activity.

Site 3 was a scatter of historic artifacts dating to the 1780-1820 period. Historic artifacts were recovered from 40 shovel test pits in an area measuring approximately 100 meters east-west and 150 meters north-south (330x500 feet). Among the artifacts recovered were pearlware, whiteware, white clay pipe stems, a wine bottle base dating to circa 1780-1820, cut nails, window glass, more than 20 pieces of coarse redware, and numerous fragments of brick. The site appeared to be centered on the crest of the bluff, where the artifact concentration was heaviest; the artifacts lower down on the slope may have been carried there by plowing and runoff.

Site 4 was a lithic scatter located on top of the bluff, above Site 2. Although Site 4 corresponded more closely to the reported location of Site 7NC-F-13, the LBA survey found less material there than lower down on the slope. The finds LBA did make within Site 7NC-F-13 consisted entirely of jasper and chert debitage, much of which was of uncertain cultural origin.

Site 7NC-F-13, consisting of LBA Sites 2, 3, and 4, was considered potentially eligible for listing in the NRHP. As defined by Phase I testing, Site 7NC-F-13 measured approximately 250x100 meters (800x325 feet). The historic component, most likely a farmstead from the 1780 to 1830 period, had the potential to contribute to the knowledge of local and regional history in the early

Federal period. Concentrations of brick observed on the surface indicated that structural and other features might be present from which information could be obtained on the housing, material culture, and foodways of the residents, as well as the spatial organization of the farm.

The prehistoric component likewise had the potential to contribute to the knowledge of regional prehistory. Three projectile points were recovered during the survey, and the recovery of others could establish dates for the occupation of the site, while analysis of the artifacts might also establish the site's function, contributing to the understanding of regional settlement patterns. Phase II significance evaluation was therefore carried out after consultation with DelDOT and DESHPO staff, and the results are reported in Chapter VI.

Site 7NC-F-24, the Guseman Site

The Guseman Site, identified as Site 5 during the initial testing and as the Spring Valley Prehistoric Site in the management report (Bedell 1995a), was a thin scatter of prehistoric lithics and nineteenth-century ceramics located near the northern end of Area 4, 450 meters (1,500 feet) from the Appoquinimink River. The site measured approximately 50x50 meters (150x150 feet). The prehistoric artifacts recovered consisted of six pieces of quartz and jasper debitage (see Plate 2), while the historic finds included creamware, pearlware, whiteware, and redware. Site 5 was equated with previously recorded Site 7NC-F-24. The recorded location of Site 7NC-F-24 was actually more than 100 meters (325 feet) south and somewhat west of Site 5. However, that location was recorded on the basis of a verbal description supplied by an amateur collector, and is not considered to be wholly reliable.

Site 7NC-F-24 did not appear to be potentially significant. The prehistoric site was only a thin lithic scatter with no diagnostic materials or artifact concentrations, and probably represented a few episodes of hunting or gathering in the vicinity. The historic material was thought to be a field scatter associated with the Spring Valley farm, located 150 meters (500 feet) to the northwest. The site was located entirely within plowed fields, in an eroded upland context where features would be unlikely to survive. The artifact recovery was low, and no real concentrations of material were noted. Because the Guseman Site lacked integrity, it did not meet the criteria for listing in the NRHP. No further work was recommended.

16. Fusco Wetland Replacement Area

The Fusco Wetland Replacement Area was located adjacent to the SR 1 corridor on the northern bank of the Appoquinimink River and included part of the Appoquinimink North Site (Site 7NC-F-13). The right-of-way for the wetland encompasses an area of approximately 1.2 hectares (6.0 acres). This area consisted mostly of well-drained, gently sloping agricultural fields, with a narrow strip of grass and trees along the wetlands adjacent to the river.

The eastern 20 percent of the wetland area had already been tested as part of the Phase I survey of the SR 1 corridor and the Phase II evaluation of the Appoquinimink North Site. The remainder was shovel tested at 20-meter intervals, employing 48 shovel test pits (see Figure 37).

Thin scatters of both historic and prehistoric artifacts were detected. Eight of the original shovel test pits yielded prehistoric material, all stone flakes, no more than two per shovel test and all from the plowzone. Eighteen additional, close-interval shovel tests were excavated around these finds, of which five yielded one or two flakes each. The artifacts were not concentrated in any particular portion of the survey area, but were scattered throughout. A total of 16 prehistoric artifacts, all flakes, were recovered during the survey. These artifacts were probably related to occasional camping along the river during hunting and gathering forays and have little information potential. The prehistoric component may represent the same activities as the prehistoric component of Site 7NC-F-13. As noted above, Phase II significance evaluation was recommended for Site 7NC-F-13 and carried out after consultation with DelDOT and DESHPO staff. The results of the Phase II testing are reported in Chapter VI.

The historic material recovered, consisting of one piece each of redware, whiteware, pearlware, and clear bottle glass, together with a small amount of brick and coal, was concentrated along the eastern edge of the wetland area, adjacent to the Appoquinimink North Site. These artifacts almost certainly derive from the circa 1800 farm within that site, and were not considered potentially significant by themselves. However, they were found within the boundaries of the historic component of Site 7NC-F-13, which received a Phase II investigation (see Chapter VI). The Phase I survey of the remainder of the wetland area did not locate any other potentially significant archaeological sites, and no further work beyond that already recommended for Site 7NC-F-13 was recommended in the Fusco Wetland Replacement Area.

17. Survey Area 5

Survey Area 5 was a high-potential area located on the southern bank of the Appoquinimink River, west of U.S. Route 13. Area 5 consisted of the yards of five houses located along the Appoquinimink River waterfront, as well as a small wooded lot (Figure 39; Plate 5). The survey area measured approximately 2.4 hectares (6.0 acres). The grid of shovel tests used to survey the area was distorted by the presence of houses, driveways, and other obstacles, but where practical, the 20-meter interval was maintained. All accessible portions of Area 5 were surveyed, except for a low-lying ravine with steep banks toward the western end. One site was discovered in Area 5, a dense prehistoric scatter designated 7NC-G-141 (the Appoquinimink South Site).

Site 7NC-F-141, the Appoquinimink South Site

The initial survey grid in Area 5 comprised 48 shovel test pits. Of these, 17 yielded prehistoric artifacts. To further define the site, 19 additional, close-interval shovel test pits were excavated, of which 15 yielded prehistoric remains. Artifacts recovered included chert and jasper flakes, a chert expanding-stemmed point, a chert pentagonal point, a quartz leaf-shaped point, a jasper point tip, and several sherds of prehistoric ceramics. The flakes were mostly small thinning flakes, and up to 13 were recovered from a single shovel test. The ceramics were tentatively identified as Minguannan, a variety dating to the Woodland II period. The projectile points included roughly pentagonal and stemmed forms, none strictly diagnostic, but suggesting occupation in the later Woodland I or Woodland II periods. The majority of the artifacts were

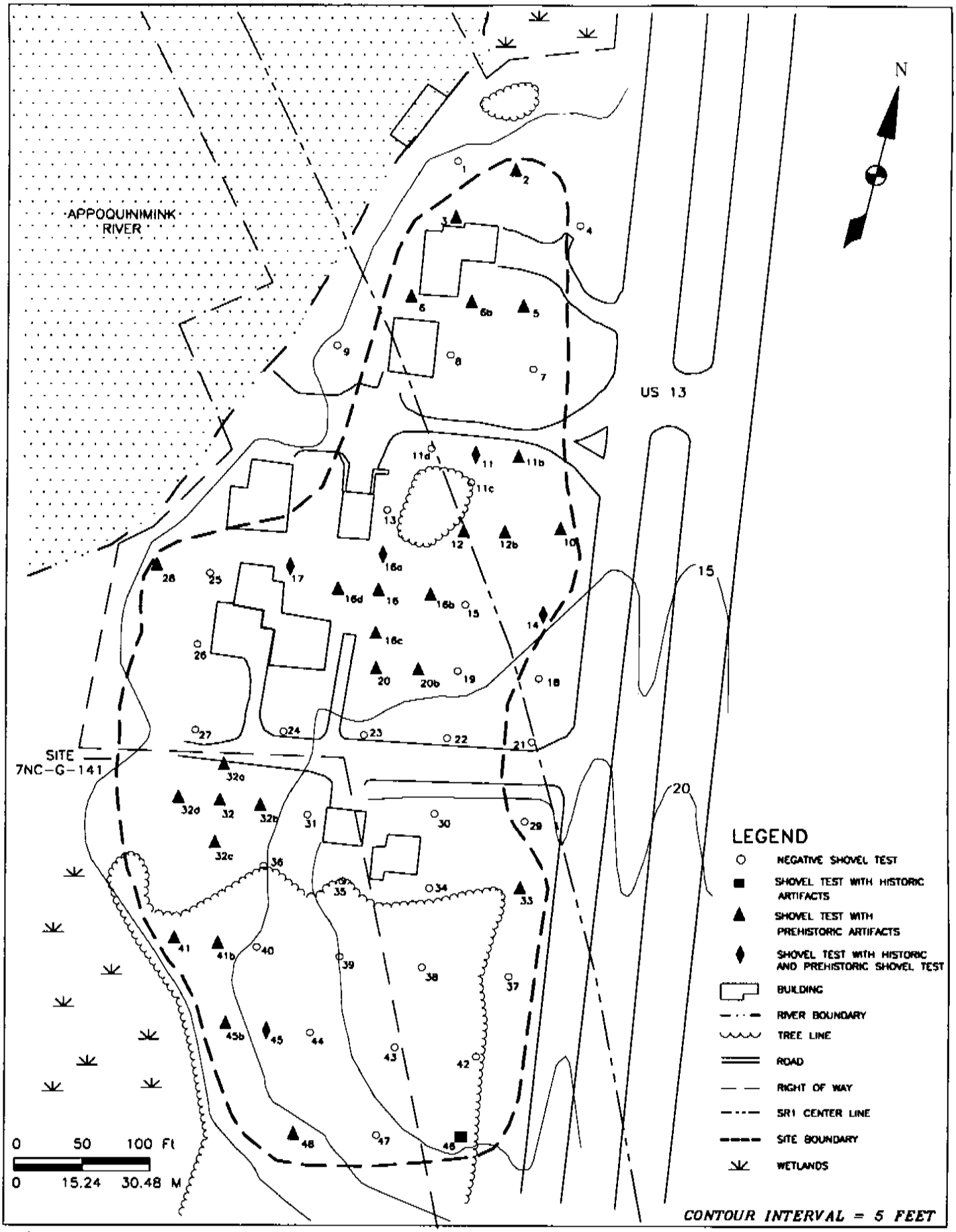

FIGURE 39: Survey Area 5, Drawyer Creek to Pine Tree Corners, and Site 7NC-G-141, Plan of Testing

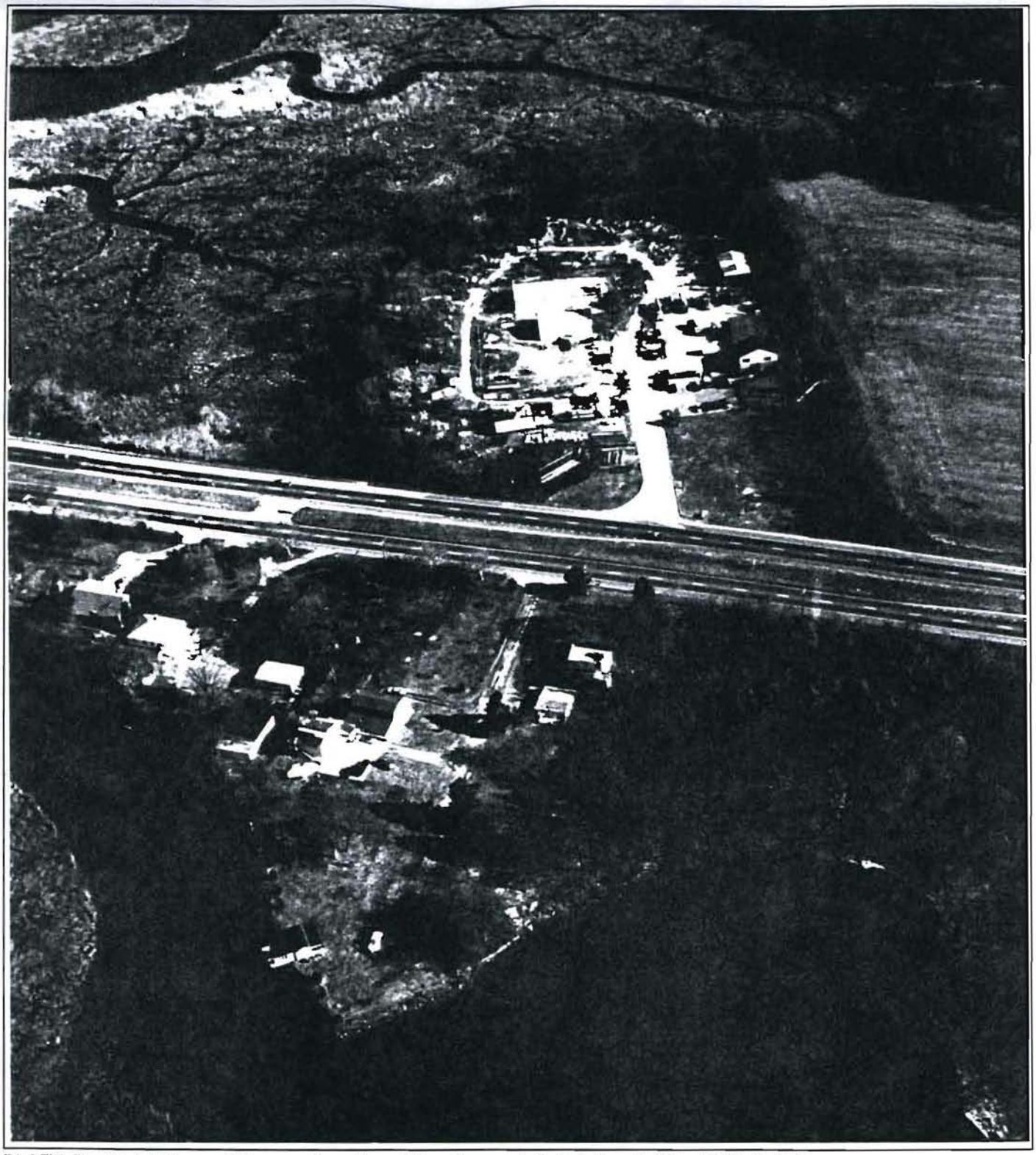

PLATE 5: Aerial View of Survey Area 5 and the Appoquinimink South Site, 7NC-G-141

recovered from plowzone contexts, but some were found in unplowed subsoil and others in what may have been unplowed areas. Positive shovel test pits were excavated in all portions of the survey area, but the finds were concentrated in a strip of high ground approximately 20 meters from the river. The locations considered desirable by the prehistoric inhabitants seem to have been the same ones preferred by contemporary house builders, and much of the site has probably been destroyed. Shovel testing also revealed that some of the ground not built on is filled marsh. As defined by the Phase I testing, the site measured about 200x80 meters (650x250 feet).

Site 7NC-G-141 was considered potentially significant. Preliminary testing indicated the presence of intact, unplowed deposits and large numbers of artifacts. Because the site had not been severely eroded, features were also anticipated. Because of the site's potential to contribute to the knowledge of the area's prehistoric inhabitants, Phase II significance evaluation of the Appoquinimink South Site was carried out after consultation with DelDOT and DESHPO staff, and the results are reported in Chapter VI.

18. Storm Water Management Pond P-5

Storm Water Management (SWM) Pond P-5 was located west of existing U.S. Route 13, approximately 500 meters (1,700 feet) south of the Appoquinimink River bridge and 100 meters (325 feet) south of Site 7NC-G-141. It comprised approximately 3,600 square meters (0.9 acres), which at the time of the survey consisted of open, level terrain situated above marshy wetlands. The wetland is part of a system of tidal embayments connected through the Appoquinimink River, providing the survey area with a high potential for prehistoric archaeological resources.

Two small, modern concrete structures were located within the proposed water management area. These structures served in the operation of a roadside fruit and vegetable stand, now abandoned. In addition, the remnants of footings for a mobile trailer, a gravel drive, and a subsurface, gravel-filled drain field connected to the trailer were found on the property. A large brushpile at the rear of the property indicated that some vegetation had recently been cleared. In sum, the project area exhibited significant disturbance.

The entire extent of the SWM Pond P-5 Survey Area was tested at 20-meter intervals, employing 13 shovel test pits (Figure 40). Soils in the project area appeared to be deflated, since they lacked a true A-horizon. Shovel test profiles showed a light yellowish silt beneath a thin humic layer. The basal stratum encountered in the tests was a strong brown silty loam with small amounts of rounded pebbles, which was interpreted as an argillic B-horizon. One archaeological site was identified in the project area, a small prehistoric site designated 7NC-G-152 (the P-5 Site).

Site 7NC-G-152, the P-5 Site

Within the survey area, prehistoric artifacts were recovered from Shovel Test Pit 2 (one ceramic sherd), Shovel Test Pit 3 (two flakes), and Shovel Test Pit 7 (two flakes). Eight additional shovel test pits were excavated in the vicinity of the positive shovel tests. Shovel Test 14,

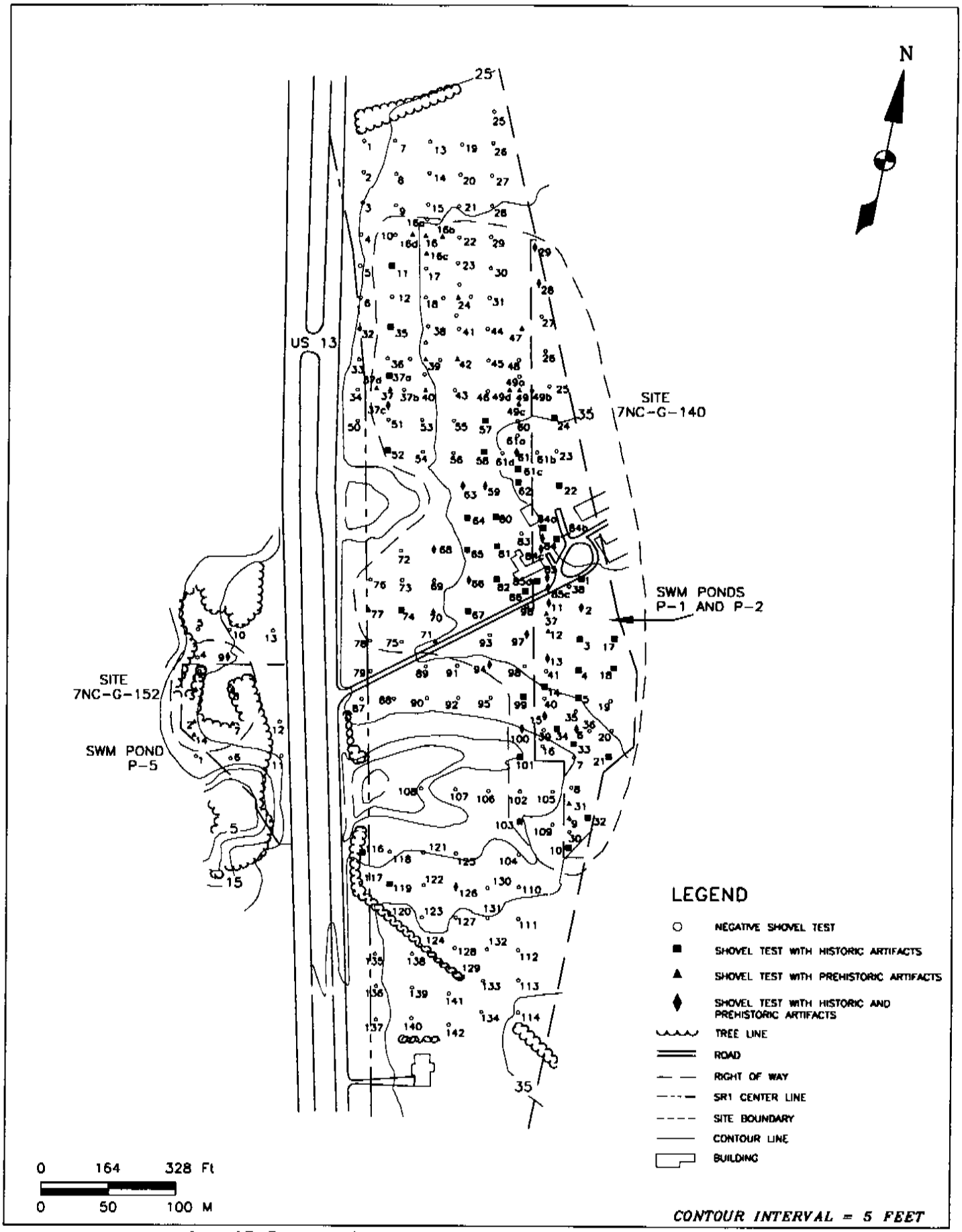

FIGURE 40: Survey Area 15, Drawyer Creek to Pine Tree Corners, Storm Water Management Ponds P-1, P-2, and P-5, and Sites 7NC-G-140 and 152, Plan of Testing

located between Shovel Test Pits 1 and 2, yielded three flakes from the upper stratum of light yellowish brown silt. No supplemental shovel test pits were excavated around Shovel Test Pit 7, due to the proximity of the subsurface drain field and the nearby gravel drive. West of SWM Pond P-5, outside the project area, the terrain sloped steeply down to the tidal marsh, and no significant quantities of prehistoric material were expected in that direction. The site measured about 20x30 meters (75x100 feet).

Only a few artifacts were recovered from the P-5 Site. In addition, the site had been heavily impacted by modern development. Therefore, the site was not considered potentially significant. No further archaeological work was recommended in SWM Pond P-5.

19. Survey Area 15

Survey Area 15 was a high-potential survey area located south of the Appoquinimink River and comprising about 5.7 hectares (14 acres). Survey Area 15 was separated from Survey Area 5 by U.S. Route 13. The survey area occupied a peninsula between two tidal tributaries of the river, and no part of the survey area was more than 150 meters (500 feet) from tidal marshland. The northernmost portion of the survey area had been mined for sand during the construction of the Dupont Highway and was not tested. The remainder of the survey area consisted of agricultural fields and the yard of an abandoned house. The survey area was shovel tested at 20-meter intervals, employing 142 shovel test pits (see Figure 40). One archaeological site was discovered. In the field, this site was divided into two loci: Site 12, a prehistoric lithic scatter in the plowed field in the northern part of the survey area, and Site 13, a multicomponent, prehistoric and historic site located around the abandoned house. Because there was no distinct boundary between them, these two sites were combined into Site 7NC-G-140 (the Springfield Realty Site).

Site 7NC-G-140, the Springfield Realty Site

The prehistoric component of the Springfield Realty Site was a thin, plowed lithic scatter, probably indicating the presence of occasionally-used procurement camps across a large area. A total of 58 prehistoric artifacts were recovered from the site, which extended over an area of approximately 250x100 meters (800x300 feet), or nearly five acres. Within this area, 143 shovel test pits were excavated, the majority of them sterile. The greatest density of finds was in the yard of the standing house, which had been disturbed by construction as well as plowing. (The yard of the abandoned house had been plowed before the house was constructed.) Although two projectile points were recovered, neither were diagnostic (see Plate 2). The artifact density on the site was thin, and the entire site had been disturbed by plowing. Therefore, it was determined that the prehistoric component lacked integrity and had little information potential, and it was not considered significant. Table 3 summarizes the prehistoric artifacts recovered from Site 7NC-G-140 during both the initial Survey Area 15 and SWM pond testing.

The historic component of the Springfield Realty Site was associated with the standing, ruined house, which appeared to date to the middle of the nineteenth century (Plate 6). A cluster of more modern farm buildings, probably dating to the early twentieth century, was located east of

PLATE 6: Shovel Testing Adjacent to the Bishop Levi Scott House, Survey Area 15

TABLE 3 SUMMARY OF PREHISTORIC LITHIC ASSEMBLAGE SITE 7NC-G-140

	RAW MATERIAL						
ARTIFACT TYPE	Quartz	Chert	Jasper	Quartzite	Rhyolite	Sandstone	TOTAL
Bifaces							
Projectile Points	1	1	.	.	.	.	2
Choppers	1	.					1
Late-Stage Bifaces	.	.	1	.	.	.	1
Early-Stage Bifaces	3	.	.	.	.	.	3
Cores							
Freehand Cores	1	.	.	.	.	.	1
Debitage							
Flake Fragments	11	9	2	.	3	.	25
Block Shatter	2	1					3
Decortication Flakes	2	3	2	1	.	.	8
Early Reduction Flakes	5	1	1	1	.	1	9
Biface Reduction Flakes	.	1	1	.	.	.	2
Fire-Cracked Rock	.	.	.	.	.	3	3
TOTALS	26	16	7	2	3	4	58

the site, outside the SR 1 corridor. Numerous twentieth-century additions, sheds, oil tanks, concrete pads, and other small structures were present around the house. The site was designated the Bishop Levi Scott Farm (CRS# N-13396) by its architectural recorders (Parkinson and Gravereaux 1995). They noted that the property had been in the hands of the Scott family since at least 1802, when Levi Scott was born on the farm. The standing house did not date to this early period, and the Phase I investigations provided no evidence of where the earlier farm was situated. Levi Scott later became a senior bishop in the Methodist Episcopal Church, and lived on this property from 1862 until his death in 1882.

The historic artifacts recovered from the Springfield Realty Site appeared to represent occupation in the twentieth and very late nineteenth centuries. Quantities of cut and wire nails were recovered, as well as plain whiteware, thin ironstone that appeared to date to the twentieth century, gray stoneware with interior brown slip, broad glass (1820-1926), and molded bottle glass. The mean ceramic date of the 35 datable sherds recovered was 1899. The number of artifacts in the unplowed areas immediately around the house was rather low; higher totals were recorded from shovel tests in the plowed fields north and south of the house. Most of the historic artifacts recovered from Site 7NC-G-140 date to the late nineteenth and twentieth centuries, and

the site has been disturbed by a combination of plowing and twentieth-century construction. Therefore, the historic component of Site 7NC-G-140 was not considered potentially significant. No further work was recommended in Survey Area 15.

20. Storm Water Management Ponds P-1 and P-2

Storm Water Management Ponds P-1 and P-2 were located east of the SR 1 corridor around the abandoned farm house on the Springfield Realty property, adjacent to Survey Area 15 and Site 7NC-G-140. SWM Ponds P-1 and P-2 adjoined and were treated as a single survey unit (see Figure 40). This survey area was long, approximately 335 meters (1,100 feet), but rather narrow, 60 meters (200 feet) wide at its widest point and averaging closer to 30 meters (100 feet) wide. The survey area measured approximately 1.4 hectares (3.5 acres). The terrain was gently undulating agricultural field, and at the time of the survey it had been recently harvested of corn. Shovel tests in the survey area were placed at 20-meter intervals, producing a grid pattern of 29 shovel test pits. The soil stratigraphy consisted of a plowzone of light olive brown to brown silty and sandy loam over a subsoil of yellowish brown to brownish yellow clayey loam.

The sample collected from the survey area contained small quantities of historic artifacts in the vicinity of the standing structures. These included redware, whiteware, flat and curved glass, brick fragments, and wire nails. Prehistoric artifacts were recovered from Shovel Test Pits 6 (one triangular projectile point and two flakes), 9 (one biface tip), 11 (one early-stage biface), 12 (one flake), 13 (one early-stage biface), and 15 (one block shatter). Supplemental shovel tests placed around prehistoric finds yielded artifacts in Shovel Test Pit 31 (two flakes) and Shovel Test Pit 37 (one flake).

While prehistoric artifacts were recovered from eight shovel tests across a distance of 150 meters (500 feet), artifact frequencies were low, with the sample retrieved entirely from plowzone contexts. The material from SWM Ponds P-1 and P-2 is therefore similar to that recovered in the adjacent corridor and defined as a large, thin, plowed lithic scatter. The historic material is typical of that recovered around later nineteenth- and twentieth-century farms. Therefore, the data recovered during the Phase I Survey of SWM Ponds P-1 and P-2 did not require alteration of the initial recommendation that Site 7NC-G-140 was not potentially significant. No further archaeological work was recommended in SWM Ponds P-1 and P-2.

21. Storm Water Management Pond O-2

Storm Water Management Pond O-2 was located west of existing U.S. Route 13, approximately 275 meters (900 feet) south of SWM Pond P-5. The survey area, measuring approximately 1.0 hectares (2.5 acres), consisted of moderately undulating terrain covered with dense secondary growth, including tulip poplar, jack pine, red maple, and thornbush. The western margin of the survey area adjoined a tidal wetland which gave the area a high potential for prehistoric cultural material.

LBA excavated 26 shovel tests in the survey area at 20-meter intervals (Figure 41). Seven additional shovel tests were placed around prehistoric finds. Testing was not carried out along

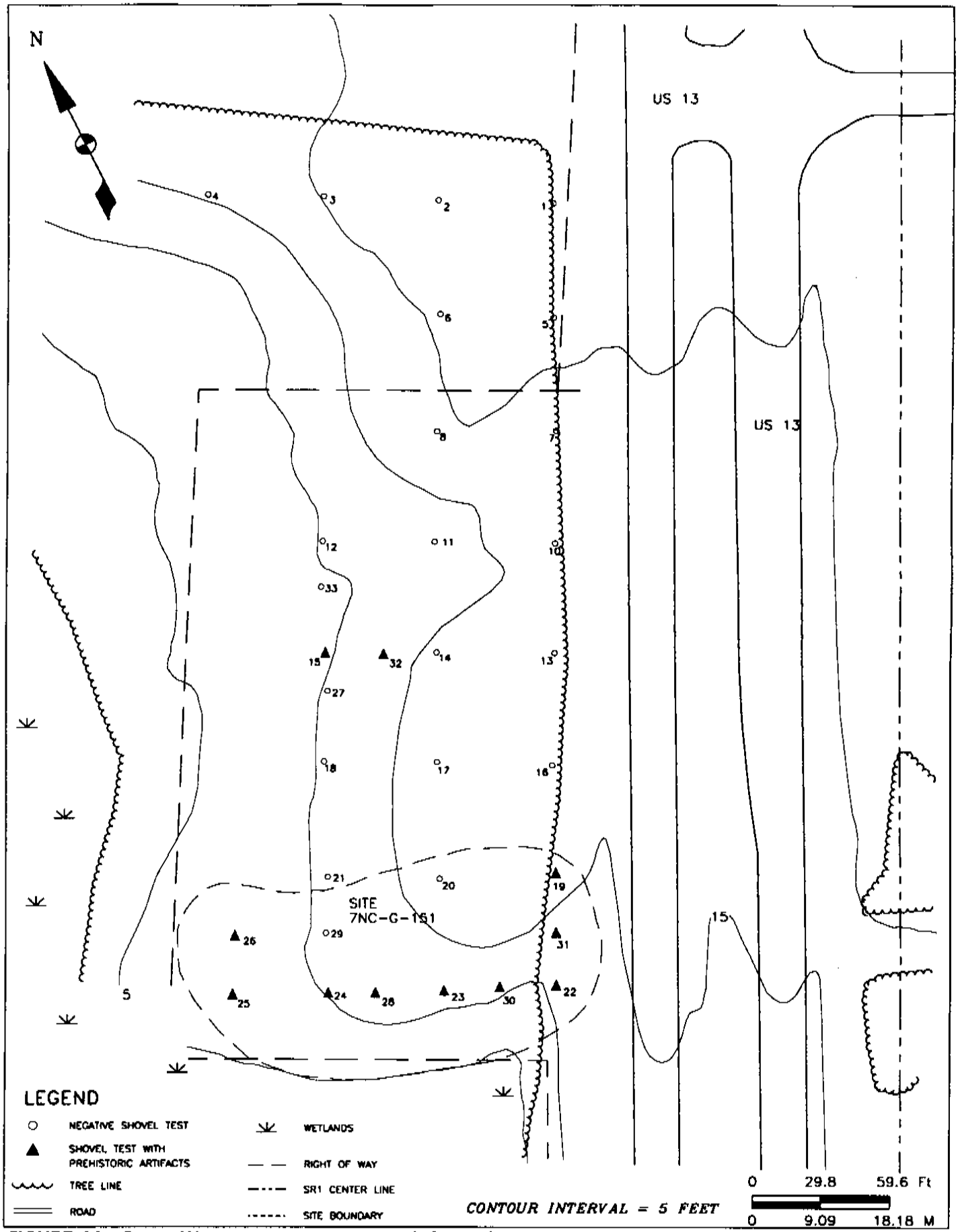

FIGURE 41: Storm Water Management Pond O-2 and Site 7NC-G-151, Plan of Testing

the margins of the wetland and on slopes greater than eight percent. Soils in the northern portion of the project area appeared to be deflated, lacking an organic A-horizon. Surface soils were characterized as yellowish brown loamy silt, overlying silty loam ranging in color from strong brown to yellowish brown. Moderate amounts of rounded pebbles were encountered throughout the soil profile. Indications of surface disturbance were evident in the form of borrow pits and a severely undulating surface. One archaeological site was identified in the survey area, a prehistoric site designated 7NC-G-151 (the Whitby Branch Site).

Site 7NC-G-151, the Whitby Branch Site

Phase I survey in the southern portion of the SWM O-2 project area recovered evidence of a prehistoric procurement site centered on a well-drained rise overlooking the wetland to the south and west. Based on analysis of the stratigraphy revealed in the shovel tests, it appeared that this area had never been plowed, so the natural soil horizons were intact. These soils consisted of brown silt loam grading into yellowish brown and strong brown sandy loam. Twenty-five flakes were recovered from 11 shovel test pits, including 10 flakes and a hammerstone from Shovel Test Pit 26. This archaeological site was designated 7NC-G-151 (the Whitby Branch Site). The site measured approximately 20x60 meters (70x200 feet). Because artifacts were recovered from apparently intact soils, the site was considered potentially significant. Phase II evaluation of the Whitby Branch Site was therefore undertaken after consultation with DelDOT and DESHPO staff. The results are reported in Chapter VI.

22. Survey Area 26

Survey Area 26 was a high-potential survey area located east of U.S. Route 13 between Odessa and Fieldsboro (Figure 42). The survey area, which measured about 600 square meters (1.5 acres), was associated with a ravine that led west, crossing U.S. Route 13 and emptying into a tidal creek that flows northward to the Appoquinimink River. The ravine contained a marshy pond, but this pond apparently was created by the construction of U.S. Route 13. Prior to the damming of the ravine, it probably held an intermittent stream. Survey Area 26 was situated on the northern side of this ravine, and Survey Area 23 was on the southern side (see below). The survey area consisted of the yard of a standing, circa 1970 house and garage. A total of 17 shovel test pits were excavated in this area. The area adjacent to the ravine, an environmental and topographic context similar to that in which Site 7NC-G-139 was located in Survey Area 23, just across the ravine, appeared to have been badly disturbed. Six possible prehistoric artifacts, consisting of questionable quartz, jasper, and chert debitage, were recovered from the survey area, all from disturbed contexts near the house. No sites were defined in Survey Area 26, and no further work was recommended.

23. Survey Area 23

Survey Area 23 was a high-potential survey area located east of U.S. Route 13 between Fieldsboro and Odessa. Survey Area 23 was located in a wooded area on the southern bank of the ravine described in the section on Survey Area 26 (see above). Survey Area 23 measured

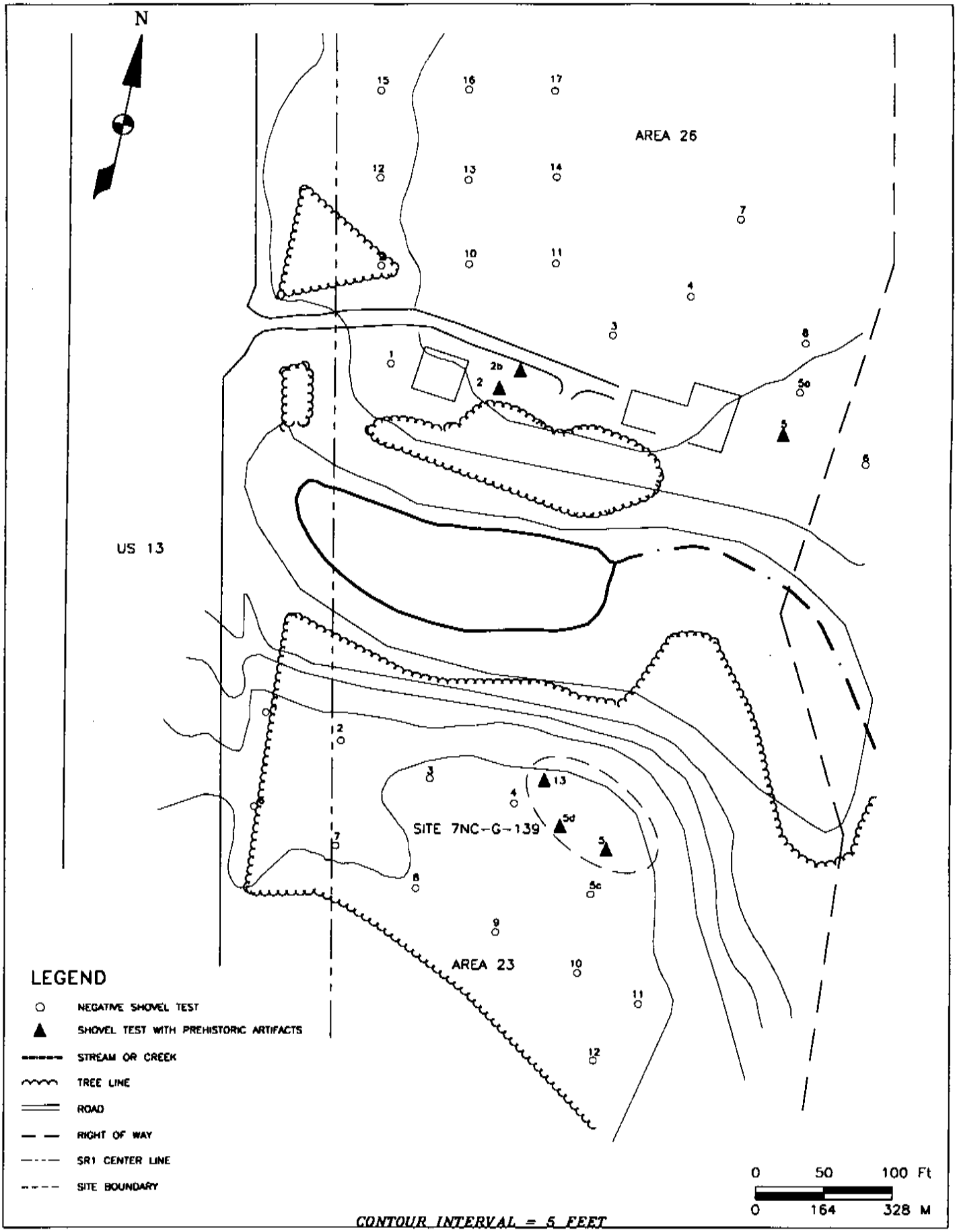

FIGURE 42: Survey Areas 23 and 26, Drawyer Creek to Pine Tree Corners, and Site 7NC-G-139, Plan of Testing

about 4,000 square meters (1.0 acres). The initial survey grid in Area 23 consisted of 12 shovel test pits laid out in two parallel rows, one row adjacent to the ravine edge and one row 20 meters to the south (see Figure 42). One site was located in Survey Area 23, a prehistoric lithic scatter designated 7NC-G-139 (the Pine Circle Site).

Site 7NC-G-139, the Pine Circle Site

The Pine Circle Site was initially encountered in a single shovel test, adjacent to the ravine edge, which yielded a single piece of lithic debitage. Of the three close-interval shovel test pits excavated around this find, two yielded prehistoric material, consisting of two flakes and a quartzite core. The site did not appear to have been plowed, and the artifacts were all recovered from what appeared to be undisturbed strata. The Pine Circle Site was, therefore, considered to be potentially significant. Although only four artifacts were recovered, they were recovered from a very small area (approximately 20x30 meters), and the stratigraphy of the site appeared to be intact. The site therefore had the potential to contain undisturbed cultural remains that would be useful in the reconstruction of land-use and settlement patterns, resource procurement strategies, and the spatial organization of small, short-term campsites. Therefore, Phase II significance evaluation of Site 7NC-G-139 was recommended. After consultation with DelDOT and DESHPO staff, Phase II testing was conducted. The results are presented in Chapter VI.

24. Survey Area 25

Survey Area 25 was a low-potential survey area located east of U.S. Route 13 between Fieldsboro and Odessa, measuring about 1.0 hectares (2.5 acres). The terrain was flat and covered with grass. A total of 24 shovel test pits were excavated in Survey Area 25, and two recent artifacts were recovered (Figure 43). No archaeological sites were defined in Survey Area 25, and no further work was recommended.

25. Survey Area 27

Survey Area 27 was a low-potential survey area located east of U.S. Route 13 between Fieldsboro and Odessa, 120 meters (400 feet) south of Survey Area 25. The project area measured about 1.0 hectares (2.5 acres), and the terrain was flat and covered with grass. A total of 24 shovel test pits were excavated in Survey Area 27. Five historic artifacts were recovered, consisting of one sherd of creamware, one sherd of whiteware, and three pieces of modern bottle glass; these were interpreted to be a simple field scatter (see Figure 43). No archaeological sites were defined in Survey Area 27, and no further work was recommended.

26. Survey Area 24

Survey Area 24 was a high-potential survey area located east of U.S. Route 13 between Odessa and Fieldsboro. The survey area was associated with a westward-flowing ravine 180 meters (600 feet) south of the ravine tested by Survey Areas 23 and 26. Survey Area 24, which measured about 4,000 square meters (1.0 acre), spanned both sides of the ravine (Figure 44). A substantial

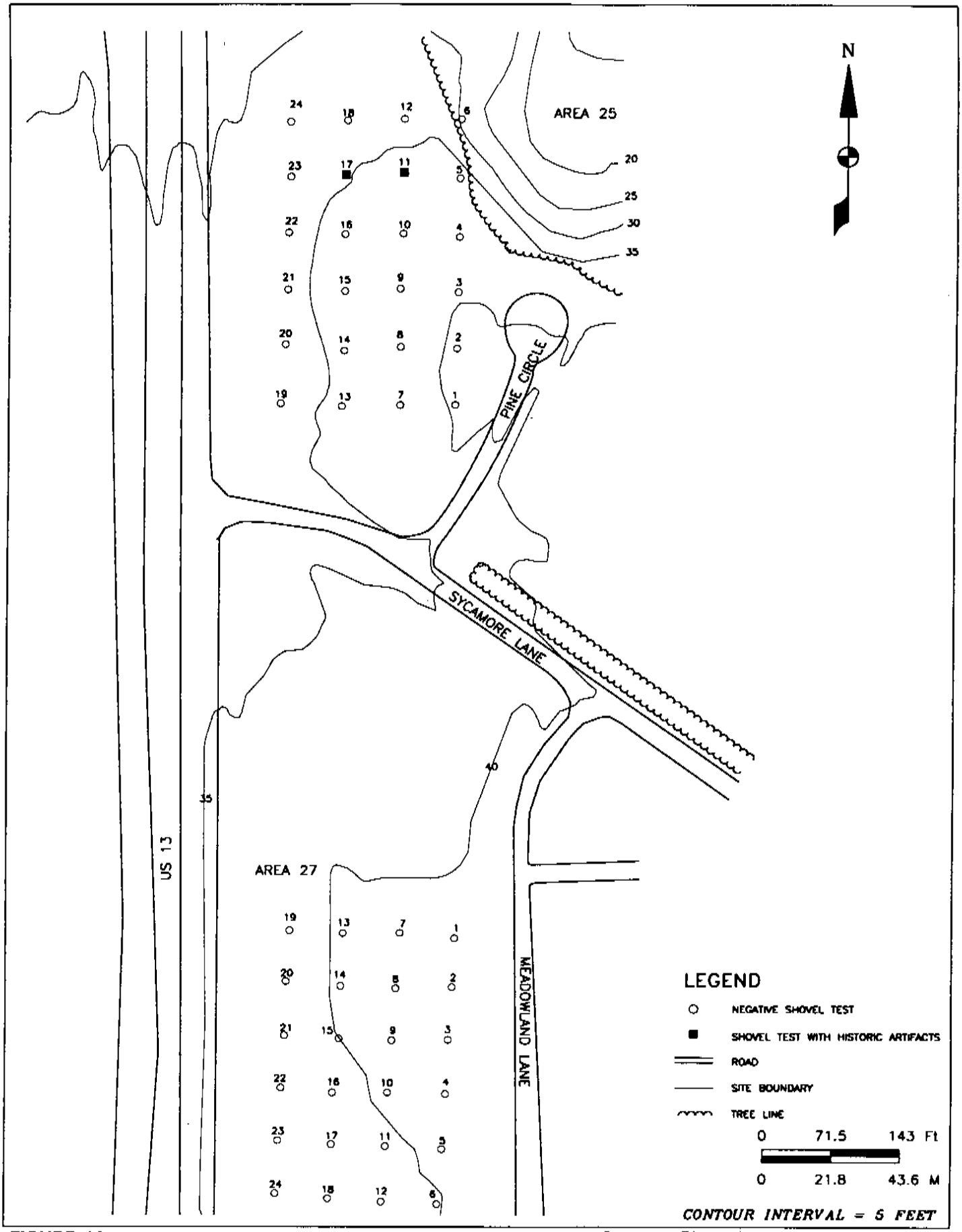

FIGURE 43: Survey Areas 25 and 27, Drawyer Creek to Pine Tree Corners, Plan of Testing

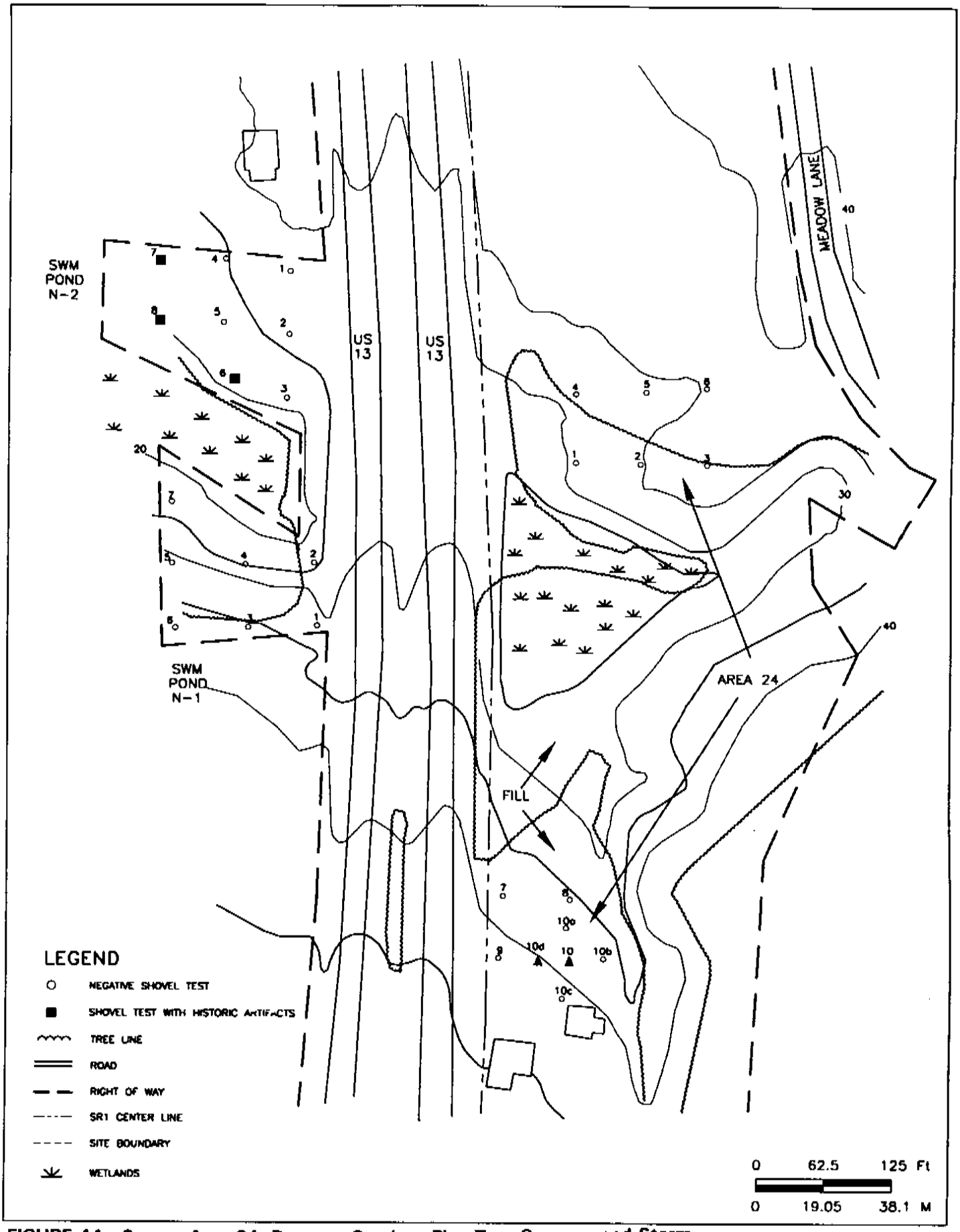

FIGURE 44: Survey Area 24, Drawyer Creek to Pine Tree Corners, and Storm Water Management Ponds N-1 and N-2, Plan of Testing

part of the area around the ravine was disturbed. Along U.S. Route 13, the slopes on both sides of the ravine had obviously been graded. South of the ravine was a standing house no more than 35 years old. The resident of this house informed us that he had filled a large area north of his house that used to be part of the ravine, and this area was not tested. The area around the house was tested, but it had been graded during the construction of the house and was thoroughly disturbed. The initial survey grid in Survey Area 24 consisted of 10 shovel tests. The six shovel test pits excavated north of the ravine yielded no cultural material. One of the four shovel test pits excavated south of the ravine yielded a single sherd of whiteware and a possible jasper flake, but close-interval shovel testing recovered only a single additional artifact and revealed that the entire area had been heavily disturbed. No archaeological sites were defined in Survey Area 24, and no further work was recommended.

27. Storm Water Management Ponds N-1 and N-2

Storm Water Management Ponds N-1 and N-2 are located west of existing U.S. Route 13, on the northern and southern banks of a small, marshy drainage that flows west into Whitby Branch, a tidal tributary of the Appoquinimink River. SWM Pond N-1, on the southern bank, comprised approximately 2,000 square meters (0.5 acres), and consisted of moderately steep terrain covered with dense secondary forest growth. Seven shovel test pits were excavated at 20-meter intervals (see Figure 44). The only artifacts recovered were two wire nails. All the soils had been plowed.

Storm Water Management Pond N-2 is located on the northern bank of the drainage. This survey area measured 2,800 square meters (0.7 acres). It is moderately sloping and covered with dense secondary-growth forest. Eight shovel tests were excavated in the area (see Figure 44). Portions of the survey area appeared to be disturbed or deflated of original surface soils, since the surface strata consisted of yellowish brown to light olive brown clayey loam.

Several historic artifacts were recovered from SWM Pond N-2, including whiteware, redware, wire nails, and curved glass. The frequencies of these finds were low (one to three artifacts per shovel test), and the objects appear to be of late nineteenth- or twentieth-century manufacture. They are probably related to the twentieth-century house located approximately 30 meters (100 feet) north of the SWM Pond N-2 survey area, or to an earlier house in the same approximate location. No structures or other cultural features are considered likely within this survey area. Due to the low density of the artifacts and their modern deposition, no archaeological site was defined in SWM Pond N-2 Survey Area, and no further archaeological work was recommended.

No sites were defined in the SWM Ponds N-1 and N-2 survey areas, and no further work was recommended.

28. Survey Area 18

Survey Area 18 was a high-potential area located along U.S. Route 13 and SR 451 just north of Fieldsboro. U.S. Route 13 and SR 451 here follow the route of a colonial road, and the area was

considered to have high potential for the locations of historic sites from the pre-1849 period. The survey area comprised about 2.0 hectares (5.0 acres), and consisted of a standing house, located along U.S. Route 13, its yard and garden, and an active agricultural field located northeast of the house along SR 451. The house had no survey record at DESHPO but appears to date to circa 1900-1920. The survey area was initially tested using 39 shovel test pits at 20-meter intervals (Figure 45). The entire project area had been plowed at some time in the past, prior to the construction of the house. In the active agricultural field, a layer of clay-loam fill up to 30 centimeters deep had recently been spread over the field, burying the older plowzone. It seems likely that this fill had been excavated from a deep drainage ditch that borders the field along its southern edge, outside the project corridor.

Site 7NC-G-138, the Hammond Site

One multicomponent archaeological site was located in Survey Area 18 and designated the Hammond Site (Site 7NC-G-138) after the current owners of the property. The site measured 100x200 meters (330x660 feet). The historic component of the site consisted of a thin artifact scatter that appeared to date to the late nineteenth or the twentieth century. Among the artifacts recovered were sherds of plain and dipped whiteware, yellowware, plain ironstone, coarse redware, a single sherd of pearlware, several wire nails, a crown bottle cap, a screw-top jar lid, mason jar glass, and molded bottle glass. The collection appeared to be associated with the standing house. The prehistoric component consisted of two artifacts, a jasper flake recovered from a shovel test behind the house and a large jasper triangular point, possibly a Levanna type (see Plate 2) (Ritchie 1971), recovered from the plowed field. Close-interval shovel test pits excavated around the flake yielded no further material. The point was actually recovered from the recent fill deposit, so no further investigation was undertaken in that location. The owner of the house said that he had recovered "arrowheads" from his garden.

The Hammond Site was not considered to be potentially significant. The historic component was thin and mixed and ranged across the nineteenth and twentieth centuries, so it had little potential to contribute to the knowledge of local or regional history. The prehistoric component was a very thin lithic scatter confined to the plowzone and other disturbed contexts and, as such, it had very little information potential. Therefore, no further work was recommended in Survey Area 18.

29. Survey Area 8

Survey Area 8, which comprised 6,000 square meters (1.5 acres), was located in the yard of a small hotel located at the northern end of the commercial strip in Fieldsboro. Houses are shown in this area from the 1849 Rea map onward. A total of 19 shovel test pits were excavated in Survey Area 8 (see Figure 45). Only a few artifacts were recovered, all from plowed contexts. Seven historic artifacts, including whiteware, ironstone, redware, clear bottle glass, and rusted iron pieces, were recovered from three shovel tests. A single prehistoric artifact was recovered, a quartz biface (see Plate 2), but nothing was recovered from close-interval shovel test pits excavated around it. Because of the extremely low density of artifacts, no archaeological sites were defined in Survey Area 8. No further work was recommended.

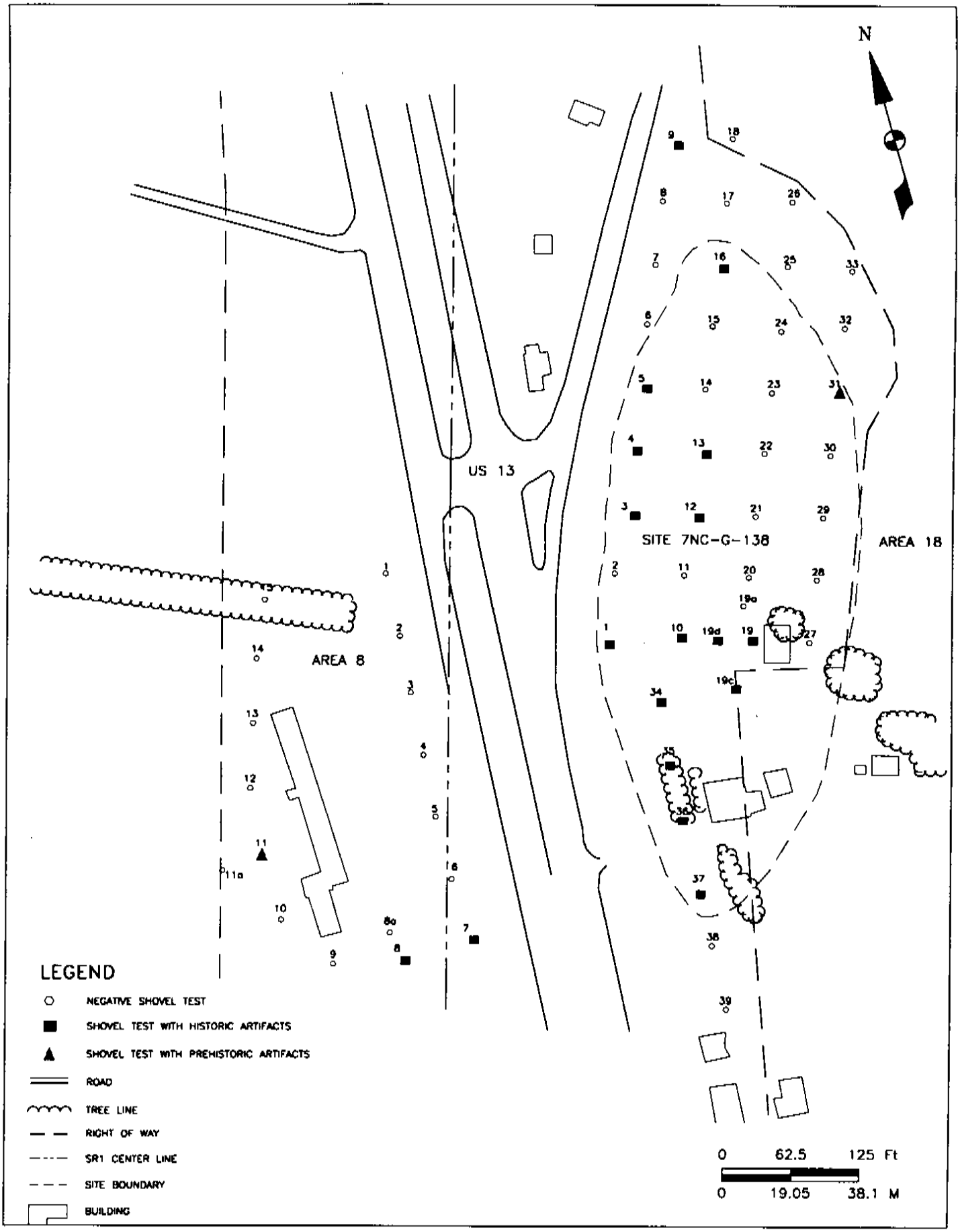

FIGURE 45: Survey Areas 8 and 18, Drawyer Creek to Pine Tree Corners, and Site 7NC-G-138, Plan of Testing

30. Survey Area 7

Survey Area 7 was located just south of the Fieldsboro commercial strip, in an agricultural field west of U.S. Route 13 (Figure 46; Plate 7). Survey Area 7 was the nearest undisturbed area to the U.S. Route 13/Fieldsboro Road intersection, where maps from 1849 on show houses and a store. North of Area 7, at the intersection, was a concrete-block structure and a paved parking lot. The other three lots at the intersection had also been paved. Survey Area 7 was located in an active agricultural field covered with corn stubble at the time of the survey. Area 7 measured about 8,000 square meters (2.0 acres), and the initial survey grid consisted of 14 shovel test pits excavated at 20-meter intervals in two transects 20 meters apart. Of these, four yielded historic artifacts. Three close-interval shovel tests were excavated around Shovel Test Pit 7-8, and one of these, Shovel Test Pit 7-8a, yielded 51 artifacts.

Site 7NC-G-137, the Hutchinson/Weldin Store Site

Site 7NC-G-137 measured 50x50 meters (150x150 feet). A range of historic artifacts were recovered from the shovel tests in Survey Area 7. These included creamware (1760-1820), jackfield-type ware (1740-1850), whiteware, yellowware, and ironstone, as well as cut nails, mold-blown bottle glass, brick, and window glass. The assemblage appears to date to the period between 1800 and 1890. The mean ceramic date of the 47 datable sherds recovered was 1877. This location was defined as an archaeological site and designated Site 7NC-G-137. The site is probably associated with a structure shown south of the Fieldsboro intersection on historic maps from 1849 on. On the 1868 Beers and 1881 Hopkins maps, the structure is labeled a store, and in both cases it belonged to the owner of the adjacent house.

The Hutchinson/Weldin Store Site was considered to be potentially significant. Substantial numbers of artifacts were recovered from the site, which had been occupied since at least 1849 and probably since the 1830s. Although the site had been plowed, it had not been significantly eroded, and the chance of features surviving below the plowzone was considered good. The Phase I investigation suggested that the site had the potential to contribute information regarding domestic and commercial life in nineteenth-century Delaware, the development of roadside stores, and the general history of the local area. Therefore, Phase II significant evaluation was recommended for Site 7NC-G-137. After consultation with DelDOT and DESHPO staff, Phase II testing was carried out, and the results are reported in Chapter VI.

31. Survey Areas 12, 13, and 14

Survey Areas 12, 13, and 14 were high-potential areas located west of U.S. Route 13 between Pine Tree Corners and Fieldsooro (Figure 47). Because of their proximity to U.S. Route 13, which follows the route of a colonial road, these areas were considered to have high potential for the presence of historic sites from the pre-1849 period. In addition, the 1881 Hopkins map shows a farm in Survey Area 13.

Survey Areas 12, 13, and 14, along with Survey Area 7, comprised all the high ground in the corridor between Pine Tree Corners and Fieldsboro. The survey areas were separated by low,

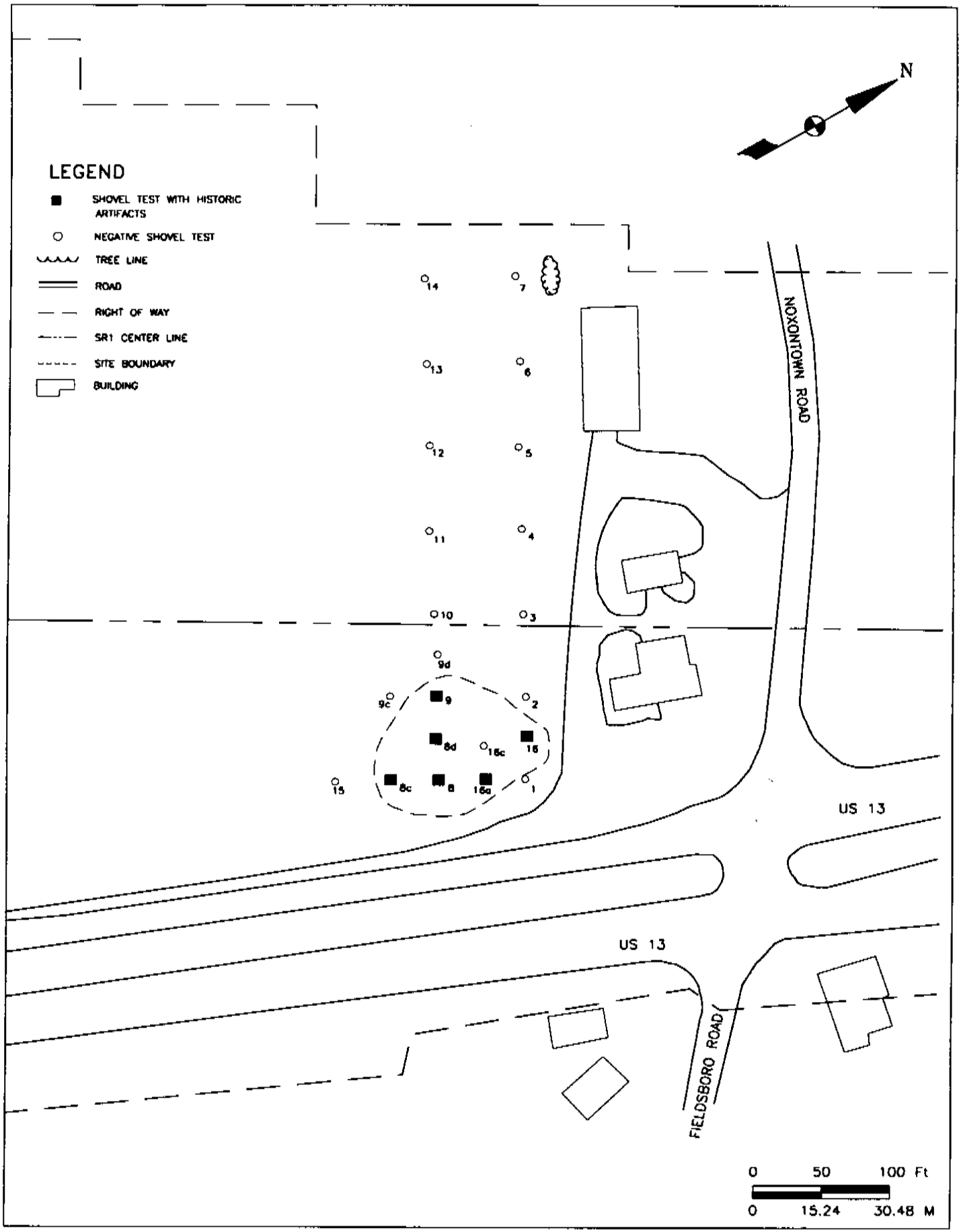

FIGURE 46: Survey Area 7, Drawyer Creek to Pine Tree Corners, and Site 7NC-G-137, Plan of Testing

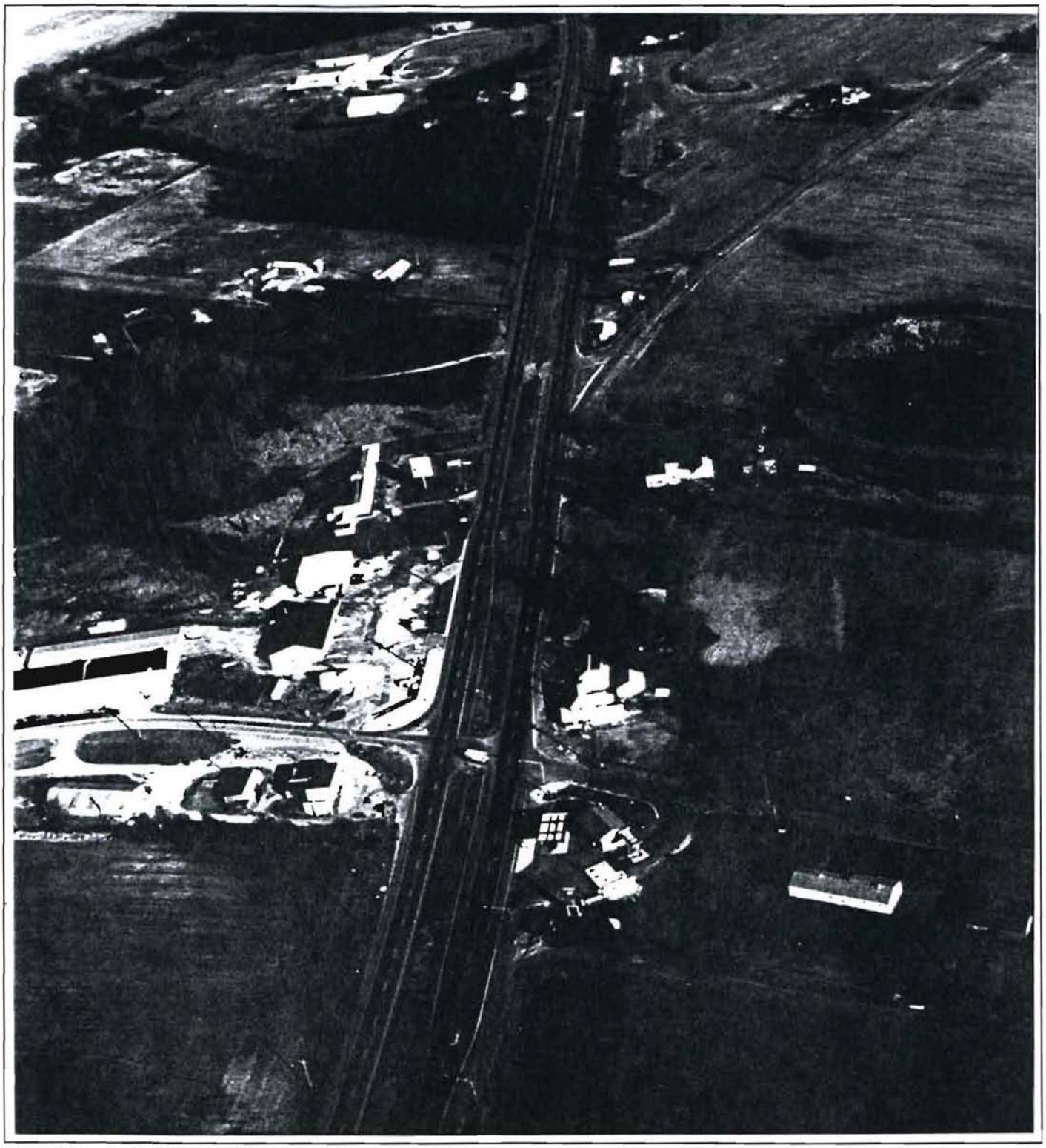

PLATE 7: Aerial View of Fieldsboro

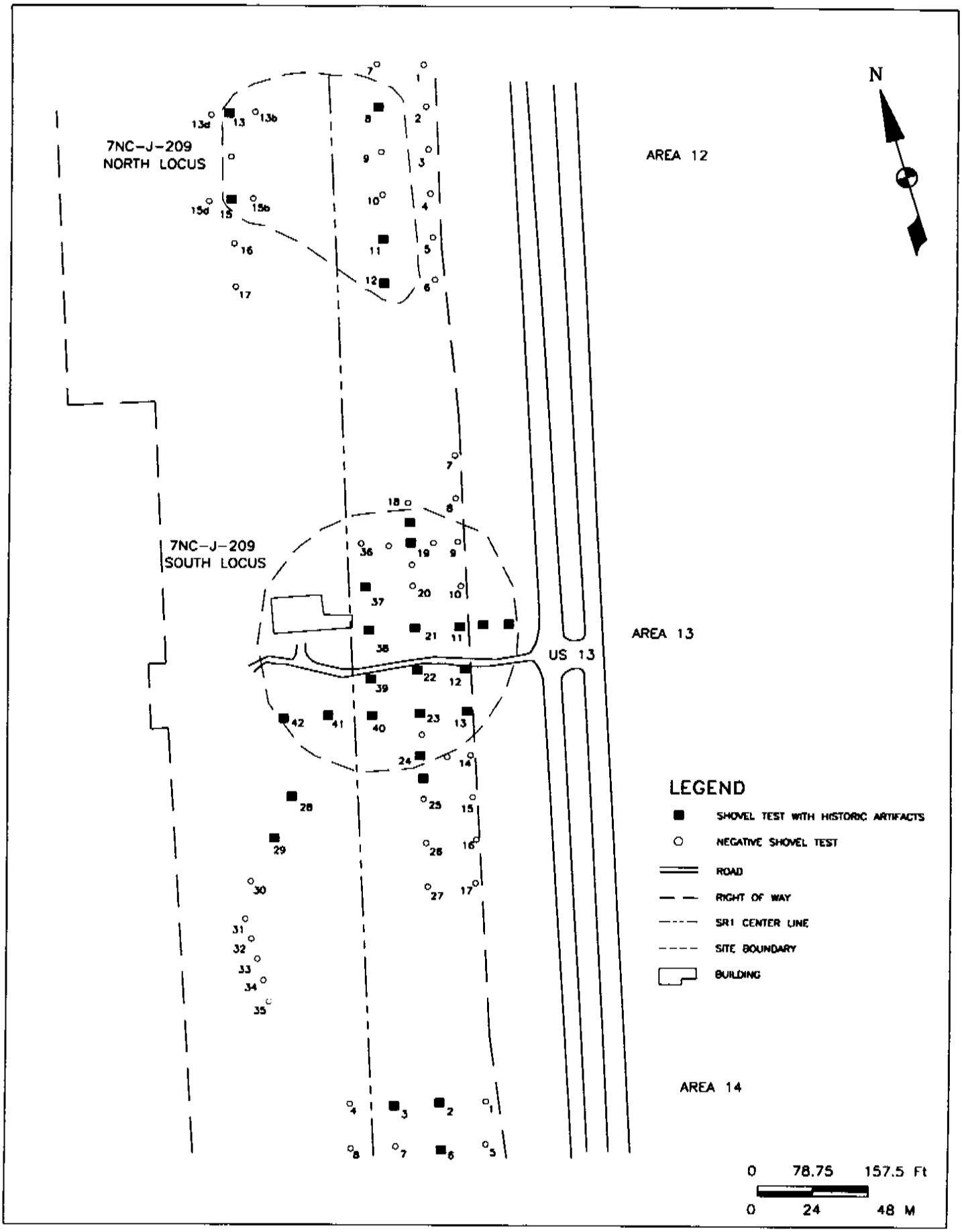

FIGURE 47: Survey Areas 12, 13 and 14, Drawyer Creek to Pine Tree Corners, and Site 7NC-J-209, Plan of Testing

wet areas, drained by large ditches, where survey was not thought necessary. The corridor here consisted of active agricultural fields covered with corn stubble. A total of 68 shovel test pits were initially laid out in the three survey areas, which together measured about 4.5 hectares (11 acres) and provided coverage of approximately 30 percent of this portion of the corridor, 36 percent of the area within 120 meters of U.S. Route 13. One archaeological site was located, a nineteenth- and twentieth-century farm attributed to C.B. Lore on the 1881 Hopkins map. This site was centered in Survey Area 13, where a barn was still standing and other structures stood until recently. Artifact scatters that were probably associated with the farm were also found in Survey Areas 12 and 14.

Survey Area 12 was the northernmost of the three survey areas. Seventeen shovel test pits were initially excavated in this area, at 20-meter intervals, 12 in two transects of six shovel tests located at the eastern edge of the corridor, and the remainder in a transect of five shovel tests located 60 meters to the west. (The area in between was lower and very muddy.) Ten historic artifacts were recovered from seven of these shovel tests. The shovel test pits yielded only one or two artifacts, except for Shovel Test Pit 12-13, which yielded three. Two close-interval shovel test pits were excavated around each of Shovel Test Pits 12-13 and 12-15, but were all negative. The artifacts recovered consisted of redware, whiteware, and clear glass, all recovered from the plowzone. The quantity of artifacts recovered was not sufficient to represent a nineteenth-century farm, and they were considered a field scatter. These artifacts may be associated with either the C.B. Lore farm, located 200 meters (650 feet) to the south, or the Bird/Lynam farm, shown on historic maps 500 meters (1,650 feet) to the west. No archaeological sites were defined in Survey Area 12, and no further work was recommended.

Survey Area 13 was located on the highest ground in this portion of the corridor, around a known nineteenth- and twentieth-century farm. The initial survey grid in Survey Area 13 comprised 42 shovel test pits. Six shovel test pits were excavated on the western edge of the survey corridor, or slightly west of it, on a low ridge overlooking a bay/basin feature that has now been drained by a substantial ditch. In the UDCAR model, this area was considered to have moderate potential for the location of prehistoric sites, but no artifacts were recovered. Eight shovel test pits were excavated along a low ridge running southwest from the farm, and these were also all negative. The remaining 28 shovel tests in the initial 20-meter grid, as well as six close-interval shovel tests, were excavated in and around the known farmstead. As noted, a historic period archaeological site was defined in Survey Area 13. It was designated the Lore Farm Site (Site 7NC-J-209) and is discussed below.

Survey Area 14 was located on a small ridge of high ground south of the Lore Farm Site, bounded on three sides by low, wet ground. Eight shovel test pits were excavated at 20-meter intervals. Four historic artifacts were recovered from three shovel tests, including one sherd each of whiteware, ironstone, and redware, and a fragment of a milk glass lidliner. All the artifacts were recovered from the plowzone. These artifacts are considered field scatter associated with the Lore Farm Site. No archaeological sites were defined in Survey Area 14, and no further work was recommended.

Site 7NC-J-209, the Lore Farm Site

Site 7NC-J-209 (the Lore Farm Site) was first shown on the 1881 Hopkins map. The site measured 120x60 meters (400x200 feet). One structure, a recent cinderblock barn, was still standing on the site at the time of the survey. The DelDOT design plans showed three other structures on the site, assumed to have been demolished very recently. One of the shovel test pits, Shovel Test Pit 13-23, encountered a foundation constructed of stone and concrete blocks, probably one of the sheds shown on the design plans. The farm house was probably the structure depicted just outside the project corridor on the design plans, in the area where Shovel Test Pits 13-11 and 13-12 yielded cut nails, window glass, and domestic artifacts. Eighteen of the 29 shovel test pits excavated on the site yielded historic material. Among the 97 artifacts recovered were whiteware, ironstone, cut and wire nails, Albany-slipped stoneware, clear and brown bottle glass, milk glass, window glass, metal fragments, iron staples, and a fragment of an ironstone figurine. The locations of the demolished structures had been plowed and planted, but the plowing appeared to have been shallow, and artifacts were recovered from intact soils around the shed foundations. A tree was still standing near the house site, indicating that part of the area had not been plowed.

Site 7NC-J-209 was considered to be potentially significant. The Phase I investigation suggested that the site might provide information on the lives of the late nineteenth- and early twentieth-century inhabitants, including their foodways, recreations, purchasing habits, and the structuring of the domestic and working space of the farm. Therefore, Phase II significant evaluation was recommended for Site 7NC-J-209. After consultation with DelDOT and DESHPO staff, Phase II testing was carried out, and the results are reported in Chapter VI.

32. Survey Area 9

Survey Area 9 was a high-potential survey area located in the hamlet of Pine Tree Corners (Figure 48). This area, which measured about 4.0 hectares (10 acres), was considered to have high potential for the location of prehistoric sites because of its proximity to wetlands and several bay/basin features. Prehistoric sites were discovered by UDCAR in similar terrain south of Pine Tree Corners Road during their survey of that portion of the SR 1 corridor. One house is also shown in this portion of the corridor, on Pine Tree Corners Road, on the 1868 Beers and 1881 Hopkins maps.

Several structures were standing within Survey Area 9 at the time of the survey. A post-World War II restaurant/gas station with an associated concrete parking lot was located at the intersection of Pine Tree Corners Road and U.S. Route 13. West of the restaurant along Pine Tree Corners Road were a small frame church, two frame houses, and lots where two other houses had recently been demolished. North of this row, the project area consisted of poorly drained woodland. Water was standing on the surface in many places within these woods, and shovel testing was limited to dry areas comprising approximately 50 percent of the wooded area.

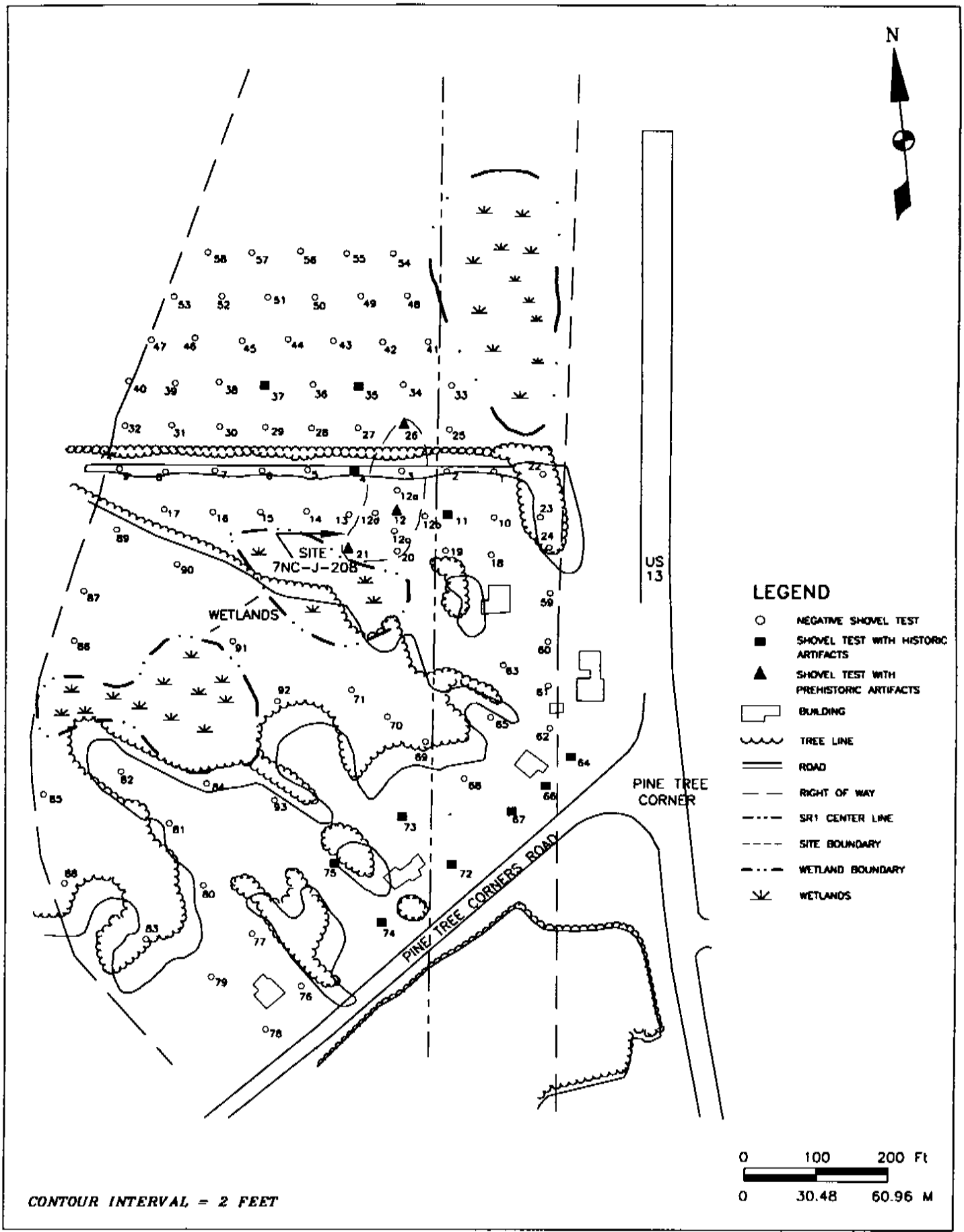

FIGURE 48: Survey Area 9, Drawyer Creek to Pine Tree Corners, and Site 7NC-J-208, Plan of Testing

The initial survey of Survey Area 9 was carried out by the excavation of 93 shovel test pits, and five additional close-interval shovel test pits were excavated around artifact finds. Where possible, shovel tests were excavated on a 20-meter grid, but wetlands and existing structures required deviation from the grid in many places. Access to the yard around the frame church was not obtained, but that yard was only 15 meters wide, and this is not felt to be a significant omission. The westernmost house along Pine Tree Corners Road, although it belonged to DelDOT, was still occupied at the time of the survey, and the back yard was almost completely covered by a collection of old buses and trailers and patrolled by an angry dog. Survey of this yard was not attempted. Approximately 10 meters of this yard are within the project corridor, and this is also not felt to be a significant omission.

One site was defined in Survey Area 9, a small prehistoric lithic scatter designated Site 7NC-J-208. All the historic artifacts recovered from Survey Area 9 appeared to be twentieth-century in date. None of the houses that currently stand in the project area, or stood there until recently, are shown on the 1931 USGS map. The surviving structures appeared to date to the 1940s or 1950s. Thus, the predominance of twentieth-century remains was perhaps predictable. The absence of remains associated with the house shown on the 1868 and 1881 maps was more surprising. The 1881 Hopkins map depicted a house, attributed to "H. Jones," situated northwest of the U.S. Route 13/Pine Tree Corners Road intersection, in a tested area. However, no nineteenth-century deposits were detected at this location. Perhaps the placement of the house on the Hopkins map is incorrect. The 1868 Beers map shows a house, also attributed to "H. Jones," at the intersection. Experience with the Hopkins map has shown that it often depicts structures which were adjacent to roads as located farther away from the road than they in reality were, perhaps for visual clarity. Since the intersection is currently occupied by the restaurant and its parking lots (outside the project corridor), the remains of the Jones house could have been destroyed or obscured by modern development. The only structure shown in Survey Area 7 on the 1931 USGS map is located directly at the intersection. If this was the earlier Jones house, it had certainly been destroyed.

Site 7NC-J-208, the Pine Tree Corners Site

The Pine Tree Corners Site was a small, plowed prehistoric procurement site. The site measured 30x60 meters (100x200 feet). A quartz projectile point was recovered from Shovel Test Pit 9-12 (see Plate 2), along with a possible chert flake. Although close-interval shovel tests excavated around the point failed to produce more prehistoric material, two nearby shovel test pits produced one piece of debitage each. The point was stemmed, with weak, rounded shoulders, a type that is often found on sites of the Late Archaic (or early Woodland I) period in Delaware (Custer 1996).

Site 7NC-J-208 was not considered to be potentially significant. Only four artifacts were recovered from the nine shovel test pits excavated within the site boundaries. All the artifacts were recovered from plowzone contexts. A plowed site with so few artifacts has little ability to contribute to the knowledge of prehistory, and the site was therefore not considered eligible for listing in the NRHP. No further work was recommended in Survey Area 9.